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Studies of early marine survival of Pacific Salmon and sea lice occurrence in Queen Charlotte Strait in 2001

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Two studies of juvenile salmon were completed in late June and early July 2001 in the Queen Charlotte Strait area. Of particular interest was the incidence of the parasitic copepod *Lepeophtheirus salmonis*, commonly known as sea lice, on ocean age 0 salmon. The trawl survey was conducted over four days from June 29 to July 4. This survey was part of a study of the impacts of climate on the abundance and behaviour of juvenile salmon in the Strait of Georgia (Beamish et al. 2000). The objectives of this study in the Strait of Georgia included estimating the minimal abundances of all species of juvenile salmon that rear in the Strait of Georgia. To do this, it is necessary to determine the species composition of juvenile salmon in the areas immediately outside the Strait of Georgia. In the area immediately north of the Strait of Georgia, the survey was also used to study the rate of infestation of sea lice. A rope trawl with a 30 m (wide) by 15m (deep) opening was towed at or near the surface at approximately 4.5 knots for 30 minutes. The size of the net and the duration of the tows have been reduced to control the size of catch. The other procedures including tow speed, were consistent with similar studies in other countries.

A second survey was conducted using a purse seine in the Broughton Islands area to examine the incidence of sea lice on juvenile salmon and specifically on pink salmon. The purse seine was 73 m long and 15 m deep without a bunt as the mesh was small enough throughout to retain juvenile salmon.

'Sea lice' is a term which refers to different genera and species of parasitic copepods. Those found on Pacific salmon are primarily *Lepeophtheirus salmonis* and *Caligus clemensi*. In this study the sea lice seen were almost exclusively *L. salmonis*. *L. salmonis* has a direct (no intermediate hosts) life cycle with several life stages. Two free-swimming nauplius stages follow egg hatching and then an infective copepodid stage. When the copepodid has found a suitable host it attaches itself with a filament and moults into a chalimus stage. There are four chalimus stages followed by two pre-adult stages and finally the sexually mature adult. The pre-adult and adult stages are no longer attached to the host by the filament.

In an examination of *L. salmonis* infections of Pacific salmon caught in the North Pacific Ocean and the Bering Sea, Nagasawa et al. (1991) found that pink salmon had a mean intensity of over six copepods and a prevalence of infection over 90%. Chum salmon had a mean intensity of just over two copepods and an infection prevalence under 45%. In the Alberni Inlet, in the early 1990s, a stock of returning adult sockeye salmon was held up in the inlet due to low water levels in the Somass River. Because of high fish density and the direct life cycle of the parasite leading to re-infections, very high infection levels of *L. salmonis* were observed. Johnson et al. (1996) recorded fish with over 1300 copepods and a mean intensity of 300. The incidence of sea lice on ocean age 0 juvenile salmon in the marine areas around British Columbia has not been reported, although infestation rates of several sea lice per fish are commonly observed in studies of salmon during their early marine period.

In this study we used the criteria of Kabata (1988) to identify sea lice to genus and species. The fish from the purse seine samples were examined visually and under a dissecting microscope at

9-18X. The number of individual copepods in all age stages were recorded from the microscope examination.

Results

Trawl Surveys

The trawl survey was conducted using the commercial trawler Caledonia. A total of 31, ½ hour tows were made at or near the surface (Figure 1). Tows deeper than a headrope depth of 30 m are not included in this report. Catch and set information are included in Appendices I and II. The total catch of each species, the catch-per-hour (CPUE) and average fish length in the Queen Charlotte Strait area were compared with the results of the survey in the Strait of Georgia (Table 1). The CPUE of pink salmon and sockeye salmon was larger in Queen Charlotte Strait than in the Strait of Georgia. The CPUE of chum, coho and chinook was substantially larger in the Strait of Georgia than in Queen Charlotte Strait. The lower catches of pink salmon in the Strait of Georgia result from the virtual absence of juvenile pink salmon production from the Fraser River in the odd year, 2001. The density or CPUE of coho, chum and chinook in Queen Charlotte Strait was not converted into an estimate of total abundance. However, for comparison, the densities (CPUE) for these species in the Strait of Georgia represented estimated abundances of 9.5 million, 14.2 million and 5.9 million fish respectively (Beamish et al 2001). In July 2000, the CPUE of pink salmon in the Strait of Georgia was 124 pink per hour which resulted in an abundance estimate of 7.4 million pink salmon.

The incidence of sea lice on the total sample was assessed for four conditions of scale loss (Table 2) for pink, sockeye, chum and coho. Chinook were not included because of the small number captured. Coho had the largest average rate of infestation at 1.4 sea lice per fish caught. Sockeye had the second highest rate of infestation (0.7), followed by pink (0.2) and chum (0.2) with identical infestation rates per total catch (Table 2). There was no apparent relationship between the amount of scale loss and the rate of infestation. Only one fish had an infestation that exceeded 10 sea lice per individual (Table 3). No pink salmon had more than three sea lice per individual and one chum salmon had 4 sea lice. Only 28 of the 1003 fish examined had infestation rates greater than three sea lice per fish.

Purse Seine Survey

The purse seine sets are shown in Figure 1. The samples collected from the various sets are shown in Table 4. These samples were sub-sampled for fish health analysis (Table 5).

Pathogens

Using standard molecular diagnostic methods (polymerase chain reaction – PCR), tissues from five fish were pooled and tested for infectious salmon anaemia (ISA), infectious haematopoietic necrosis (IHN), infectious pancreatic necrosis (IPN), viral haemorrhagic septicaemia (VHS) and

Piscirickettsia salmonis. In addition, kidney tissue was cultured for standard bacterial fish pathogens.

The molecular tests (PCR) for the pathogens: ISA virus, IHN virus, IPN virus, VHS virus, and *Piscirickettsia salmonis* were negative.

Bacteriology

All samples listed in Table 5 (B) were examined to determine the presence of fish pathogens. Kidney tissue was collected and processed, using the methods described in the Department of Fisheries and Oceans (1984) fish health protection regulations: manual of compliance (FHPR). Kidney of each fish was plated onto tryptic soy agar containing an additional 0.5% NaCl to ensure inclusion of marine fish pathogenic bacteria. Significant colonies were identified using biochemical methods after 5 days on the culture medium. Gram-stains of kidney tissue were checked for significant bacteria and for protozoan parasites. No bacteria known to be fish pathogens were isolated in any of the analyses.

Virology

All salmon listed in Table 5 (C) were anlaysed using the procedures in the FHPR for virus detection. Fish tissues, kidney, spleen and pyloric caeca, were pooled for three fish. Two cell lines, CHSE-214, EPC, were used for the assay. All assays testing kidney, spleen and pyloric caecal material on CHSE-214 and EPC cells were negative.

Sea Lice infestation

L. salmonis was found to be the predominant species. The total number of individuals of other sea lice species observed was less than 10. Sea lice not identified as *L. salmonis* were identified as Caligus sp. (likely *C. clemensi*).

The visual counts and the counts using the microscope differ in the maximum number of sea lice per fish (Appendix III, IV). The highest visual count per pink salmon (Appendix III, Figure 2d) was 10, while the highest recorded number using the microscope was 22 (Appendix IV). The total number of pink salmon including the fish showing no lice had an average number of 1.5 lice per fish. In total, approximately 60% of pink salmon had one or more lice. Of the 195 pink salmon examined, 25 fish had more than 4 lice and 2 fish had more than 10 lice. There were 115 of the 195 fish infected (59%) with a total of 307 sea lice or 1.6 lice per fish in the total sample and 2.7 lice per infected fish.

All life cycle stages of copepods were recorded when pink salmon were examined using a microscope. The distribution of life stages for the *L. salmonis* sea lice found in the study is listed

in Table 6. The youngest stage (copepodid) was most frequent (20.4%). Other stages varied from 8.1% (chalimus 4 stage) to 18.9% for pre-adults.

There was no apparent link between the amount of scale loss and the visual sea lice count. The majority of fish had no or few lice, and were distributed over the 4 scale loss rating levels (Appendix III). Similarly, there was no apparent relation between sea lice count and lesion rating (Appendix III). Of the total 195 pinks, 139 had between 0-2 lice with lesions rated between 0-8. Twenty-eight fish had a lesion rating of 4, but had minimal sea lice numbers (Figure 2a).

The frequency of sea lice counted using a microscope is shown in Figure 2. The comparison of visual and microscope counts is in Figure 2d. Many pinks had a scale loss rating of 1 (105 fish) with lice counts between 1 and 2 (Figure 2b). Of the 25 fish with a scale loss rated 2-3, 20 or 80% had a sea lice count of less than 3 (Figure 2b). The two fish with heavy lice numbers (16 and 22 lice per fish) showed light to moderate scale loss (Figure 2b). No lesions were seen in the two fish with lice numbers over 15 (Figure 2a).

Sea lice were found on the head and on the body but not on the tail. The head area, as defined from the anterior of the fish to the edge of the operculum, had 13.9% of the total number of copepods. The body, the region between the head and the tail had 86.1%. No lice were seen in the tail area which was defined as the region posterior to a line drawn from the posterior end of the adipose fin to the posterior end of the anal fin.

There were 116 chum salmon examined visually and 77 were infected (66.4%) with 223 sea lice or 2.9 lice per infected chum salmon and 1.9 lice per chum in the total sample. When the pink and chum salmon were combined (331), there were 192 fish (58.0%) that had 530 sea lice or 2.8 lice per infected fish and 1.7 lice per fish for the total sample. The comparison of the number of lice counted on individual fish using visual observation with the results from the microscopic evaluation showed that visual observation underestimated the total number of sea lice.

In general, the juvenile pink salmon, as well as the other species (chum and coho) collected in the two surveys appeared to be in very good condition. There was little scale loss, few fish had external lesions, and there was a low number of sea lice. No bacterial or viral pathogens were detected. Approximately 1% of the fish had a large number of lice. There was no relationship between lice numbers, and scale loss or overt lesions using visual count or microscope counts.

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Table 1. Ocean age 0 juvenile salmon catches In Queen Charlotte Strait and the Strait of Georgia using rope trawl gear.

	Queen Charlotte Strait			Strait of Georgia		
	Total Catch	**Catch/hour CPUE**	**Average Length (mm)**	**Total Catch**	**Catch/hour CPUE**	**Average Length (mm)**
Pink	88	5.7	114	46	1.0	117
Sockeye	492	31.7	123	1,031	23.2	133
Chum	747	48.2	126	6,783	152.4	131
Coho	111	7.2	188	4,308	96.8	186
Chinook	29	1.7	144	2,526	56.8	145
Total	**1,467**	**31 sets**		**14,694**	**89 sets**	

Table 2. Sea lice abundance on ocean age 0 Pacific Salmon In Queen Charlotte Strait, sampled using rope trawl gear.

	Most Scales Missing	**Major Scale Loss, <25% remaining**	**26% to 74% of Scales Remaining**	**Few Scales Lost, 75% to 100% Remaining**	**Total**

Pink	3	16	68	0	87
Total Sample	0	0.4	0.1	0	0.2
Average # of sea lice					
Sockeye					
Total Sample	12	84	309	12	417
Average # of sea lice	0.3	0.8	0.6	0.3	0.7
Chum					
Total Sample	94	160	132	2	388
Average # of sea lice	0.3	0.2	0.2	0	0.2
Coho					
Total Sample	47	44	19	1	111
Average # of sea Lice	1.4	1.5	1.5	0	1.4

Table 3. The Number of fish with infestations greater than 3 sea lice per fish for fish sampled using rope trawl gear (A dash indicates no lice present).

	Number of Sea Lice						
	4	**5**	**6**	**7**	**8**	**9**	**10 or more**
Pink	-	-	-	-	-	-	-
Sockeye	6	5	1	-	1	1	-
Chum	1	-	-	-	-	-	-
Coho	6	3	2	1	-	-	1

Table 4. Samples of ocean age 0 salmon collected from purse seine (A dash indicates that no samples were collected).

Set	**Pink**	**Chum**	**Coho**
2	-	-	2
3	-	-	10
4	-	30	23
5	60*	25*	-
6	-	24*	1
7	7*	30*	1*
8	-	34*	-
9	-	2*	-
10	-	30*	10*
11	-	-	2*
12	-	-	1
14	-	1	3
16	-	1	-
18	60*	21*	2*
19	60*	11*	-
20	35*	60*	-
21	-	-	6
22	13	60	-
23	-	-	2
24	-	60	-

25	30	30	-
TOTAL	**265**	**425**	**63**

* Used for fish health evaluation

Table 5. Analysis of samples for fish health evaluation

Organization	Samples
Ministry of Agriculture, Fisheries and Food	
Pathogen Study	20 pink, 5 chum, 5 coho
Pacific Biological Station	
A. Sea lice counts, visual and microscopic; external damage	195 pink, 136 chum
B. Bacteriology and general post-mortem evaluation	60 pink (from A above), 40 chum (from A), 7 coho
C. Virology	195 pink (from A above), 40 chum (from A), 12 coho

Table 6. The percentage of the life stages of *L. salmonis* on all fish

STAGE	**PERCENTAGE**
Copepodid (CP)	20.4
Chalimus 1 (C1)	10.6
Chalimus 2 (C2)	14.7
Chalimus 3 (C3)	12.8
Chalimus 4 (C4)	8.1
Pre-adult (PA)	18.9
Adult (A)	14.5

Figure Captions

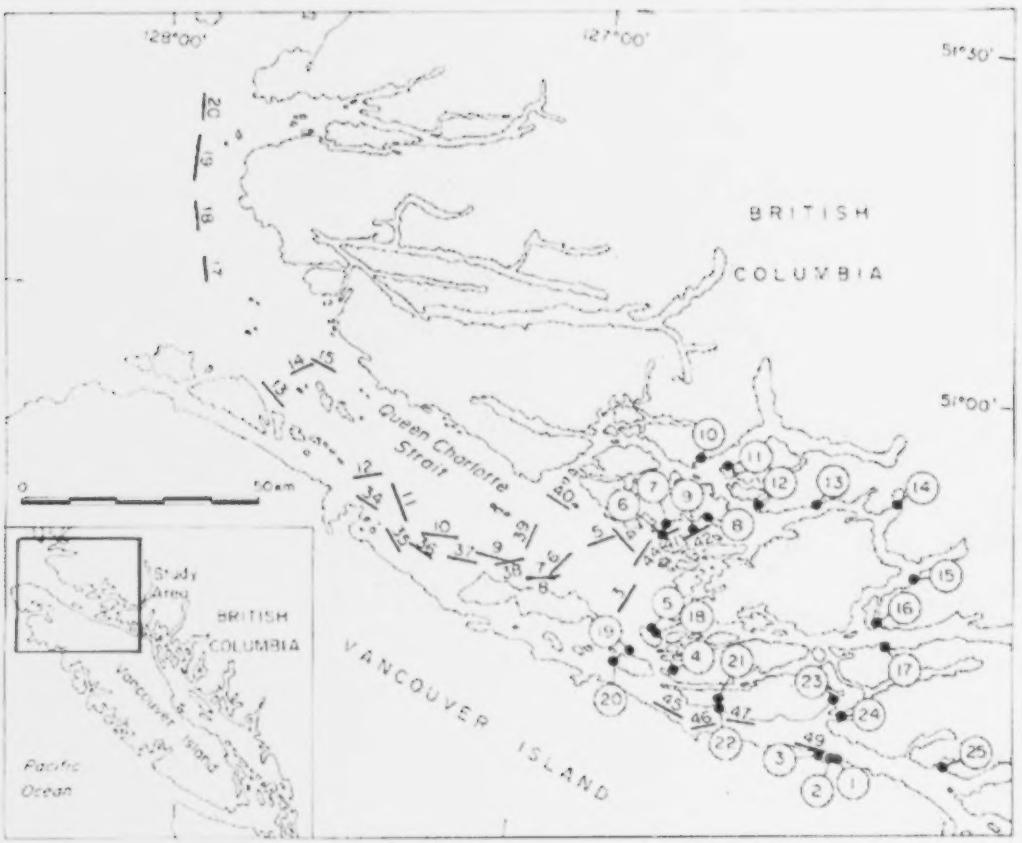
Figure 1 The location of the trawl sets (—) and the purse seine sets (•).

Figure 2 (a) The frequency of sea lice (using a microscope) and the lesion scale (Appendix III). The numbers in the shaded boxes represents the number of pink salmon. Lighter shading indicates more salmon.

(b) The frequency of sea lice (using a microscope) and level of scale loss (Appendix III). The numbers in the shaded boxes represents the number of pink salmon. Lighter shading indicates more salmon.

(c) The frequency of infestation of sea lice on pink salmon.

(d) The comparison of the counts of sea lice using a microscope and the visual counts. The numbers in the shaded boxes represents the number of pink salmon. Lighter shading indicates more salmon.


128°00'
127°00'
51°30'
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BRITISH
COLUVBIA
Queen Charlotte
Strait
0
10km
Study
Area
BRITISH
COLUMBIA
Vancouver Island
Pacific
Ocean
VANCOUVER ISLAND

Figure 1.

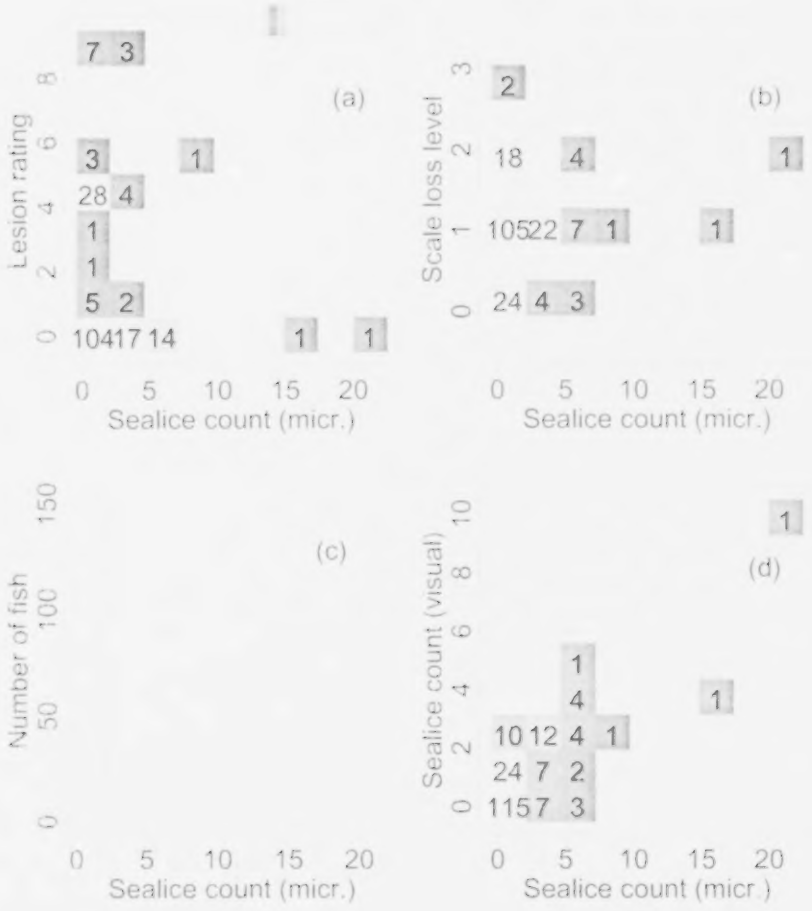
(a)
Lesion rating
Sealice count (micr.)
(b)
Scale loss level
Sealice count (micr.)
(c)
Number of fish
Sealice count (micr.)
(d)
Sealice count (visual)
Sealice count (micr.)

Figure 2

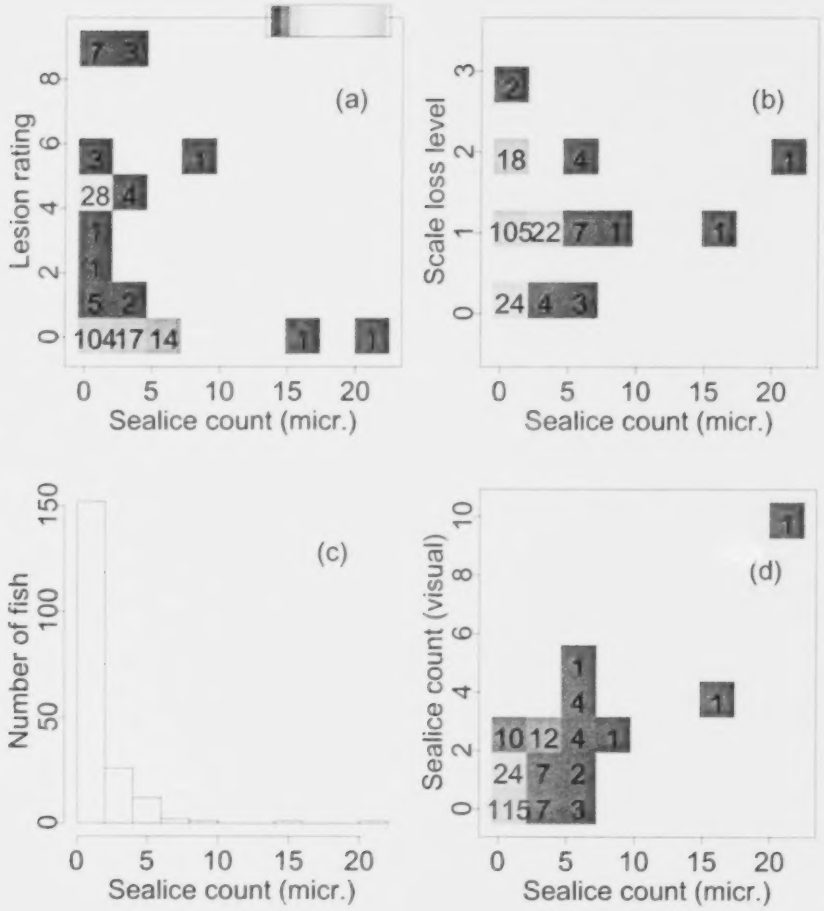
(a)
Lesion rating
Sealice count (micr.)
(b)
Scale loss level
Sealice count (micr.)
(c)
Number of fish
Sealice count (micr.)
(d)
Sealice count (visual)
Sealice count (micr.)

Figure 2.

Appendix I

Set locations for the trawl survey.

Set	Starting Date	Location	Start Lat.	Start Long.	End Lat.	End Long.
3	29/06/01	Malcolm Island	50.38.64	126.47.55	50.41.24	126.45.54
4	29/06/01	Nowell Channel	50.43.91	126.46.36	50.45.87	126.49.77
5	29/06/01	Nowell Channel	50.45.16	126.49.32	50.44.07	126.52.65
6	29/06/01	George Passage	50.43.11	126.54.96	50.41.13	126.57.53
7	29/06/01	Malcolm Isl., North of	50.40.87	126.57.24	50.40.38	127.0.53
8	29/06/01	Malcolm Isl., North of	50.40.48	127.0.74	50.40.72	126.57.03
9	29/06/01	Malcolm Isl., North of	50.41.66	127.2.88	50.42.9	127.8.29
10	29/06/01	Numas Isl.	50.43.15	127.10.69	50.43.13	127.16.4
11	29/06/01	Masterman Islands	50.44.02	127.17.95	50.47.25	127.20.68
12	29/06/01	Port Hardy	50.47.83	127.22.52	50.47.14	127.26.48
13	29/06/01	Gordon Channel	50.52.51	127.37.03	50.54.58	127.40.58
14	29/06/01	Gordon Channel	50.55.53	127.36.81	50.56.74	127.33.92
15	29/06/01	Queen Charlotte Strait	50.56.34	127.30.94	50.57.29	127.35.19
17	29/06/01	Cape Caution	51.2.49	127.49.88	51.4.81	127.50.83
18	29/06/01	Cape Caution	51.6.95	127.52.15	51.9.67	127.53.18
19	29/06/01	Cape Caution	51.11.19	127.53.65	51.15.44	127.53.66
20	29/06/01	Egg Island	51.16.68	127.53.63	51.19.07	127.53.98
34	29/06/01	Masterman Islands	50.45.63	127.25.35	50.44.72	127.22.69
35	29/06/01	Masterman Islands	50.43.18	127.20.73	50.41.8	127.18.25
36	29/06/01	Queen Charlotte Strait	50.42.14	127.17.53	50.41.3	127.13.93
37	29/06/01	Malcolm Isl., North of	50.41.39	127.11.95	50.41.07	127.7.65
38	29/06/01	Malcolm Isl., North of	50.41.27	127.5.34	50.42.14	127.1.37
39	29/06/01	Queen Charlotte Strait	50.43.21	127.1.26	50.45.44	127.0.11
40	29/06/01	Queen Charlotte Strait	50.47.89	126.59.36	50.47.04	126.56.17
41	29/06/01	Queen Charlotte Strait	50.45.57	126.43.6	50.46.49	126.40.65
42	29/06/01	Queen Charlotte Strait	50.45.87	126.39.63	50.47.17	126.36.76
44	29/06/01	Queen Charlotte Strait	50.45.44	126.44.15	50.43.07	126.45.96
45	29/06/01	Robson Bight	50.31.22	126.40.81	50.30.25	126.37.8
46	29/06/01	Robson Bight	50.29.41	126.35.48	50.30.2	126.32.47
47	29/06/01	Johnston Strait	50.30.61	126.30.83	50.30.49	126.27.9
49	29/06/01	Johnston Strait	50.29.24	126.20.79	50.28.78	126.16.93

Appendix II

Catch data of juvenile salmon from trawl study

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
3	Chum	5	265184	M	95
3	Chum	5	265185	M	127
3	Chum	5	265186	M	113
3	Chum	5	265187	M	103
3	Chum	5	265188	M	110
3	Chum	5	265189	M	136
3	Coho	5	265179	F	152
3	Coho	5	265180	F	143
3	Coho	5	265181	M	164
3	Coho	5	265182	M	175
3	Coho	5	265183	F	184
3	Sockeye	5	265190	M	124
3	Sockeye	5	265191	F	106
4	Coho	5	265192	F	199
4	Pink	5	265193	F	67
5	Chum	15	265195	U	128
5	Chum	15	265196	U	113
5	Chum	15	265197	U	110
5	Chum	15	265198	U	124
5	Chum	15	265199	U	118
5	Chum	15	265200	U	111
5	Chum	15	265201	U	126
5	Chum	15	265202	U	120
5	Chum	15	265203	U	125
5	Chum	15	265204	U	119
5	Chum	15	265205	U	122
5	Chum	15	265206	U	108
5	Chum	15	265207	U	123
5	Chum	15	265208	U	117
5	Chum	15	265209	U	130
5	Chum	15	265210	U	116
5	Chum	15	265211	U	190
5	Chum	15	265212	U	135
5	Chum	15	265213	U	117
5	Chum	15	265214	U	126
5	Chum	15	265215	U	111
5	Chum	15	265216	U	109
5	Chum	15	265217	U	126
5	Chum	15	265218	U	113
5	Chum	15	265219	U	114
5	Chum	15	265220	U	115
5	Chum	15	265221	U	129

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
5	Chum	15	265222	U	139
5	Chum	15	265223	U	120
5	Chum	15	265224	U	112
5	Chum	15	265225	U	120
5	Chum	15	265226	U	116
5	Chum	15	265227	U	120
5	Chum	15	265228	U	106
5	Chum	15	265229	U	102
5	Chum	15	265230	U	102
5	Chum	15	265231	U	123
5	Chum	15	265232	U	117
5	Chum	15	265233	U	120
5	Chum	15	265234	U	128
5	Chum	15	265235	U	112
5	Chum	15	265236	U	128
5	Chum	15	265237	U	121
5	Chum	15	265238	U	129
5	Chum	15	265239	U	108
5	Chum	15	265240	U	122
5	Chum	15	265241	U	121
5	Chum	15	265242	U	112
5	Chum	15	265243	U	126
5	Chum	15	265244	U	125
5	Chum	15	265245	U	117
5	Chum	15	265246	U	111
5	Chum	15	265247	U	121
5	Chum	15	265248	U	122
5	Chum	15	265249	U	134
5	Chum	15	265250	U	118
5	Chum	15	265251	U	122
5	Chum	15	265252	U	120
5	Chum	15	265253	U	125
5	Chum	15	265254	U	101
5	Chum	15	265339	F	180
5	Chum	15	265341	M	120
5	Chum	15	265342	F	122
5	Chum	15	265343	M	124
5	Chum	15	265344	M	114
5	Chum	15	265345	F	109
5	Chum	15	265346	M	153
5	Chum	15	265347	F	115
5	Chum	15	265348	M	123
5	Chum	15	265349	M	126
5	Chum	15	265350	F	115

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
5	Chum	15	265351	M	126
5	Chum	15	265352	F	143
5	Chum	15	265353	F	111
5	Pink	15	265354	M	105
5	Pink	15	265355	F	118
5	Pink	15	265356	F	126
5	Pink	15	265357	M	115
5	Pink	15	265358	M	77
5	Pink	15	265359	F	131
5	Pink	15	265360	M	117
5	Pink	15	265361	F	118
5	Pink	15	265362	F	105
5	Pink	15	265363	F	131
5	Pink	15	265364	F	119
5	Pink	15	265365	F	74
5	Pink	15	265366	M	84
5	Pink	15	265367	F	123
5	Sockeye	15	265255	U	123
5	Sockeye	15	265256	U	143
5	Sockeye	15	265257	U	121
5	Sockeye	15	265258	U	117
5	Sockeye	15	265259	U	135
5	Sockeye	15	265260	U	131
5	Sockeye	15	265261	U	120
5	Sockeye	15	265262	U	114
5	Sockeye	15	265263	U	123
5	Sockeye	15	265264	U	113
5	Sockeye	15	265265	U	124
5	Sockeye	15	265266	U	110
5	Sockeye	15	265267	U	143
5	Sockeye	15	265268	U	123
5	Sockeye	15	265269	U	115
5	Sockeye	15	265270	U	123
5	Sockeye	15	265271	U	113
5	Sockeye	15	265272	U	116
5	Sockeye	15	265273	U	111
5	Sockeye	15	265274	U	119
5	Sockeye	15	265275	U	110
5	Sockeye	15	265276	U	119
5	Sockeye	15	265277	U	108
5	Sockeye	15	265278	U	130
5	Sockeye	15	265279	U	113
5	Sockeye	15	265280	U	118
5	Sockeye	15	265281	U	107

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
5	Sockeye	15	265282	U	103
5	Sockeye	15	265283	U	109
5	Sockeye	15	265284	U	111
5	Sockeye	15	265285	U	76
5	Sockeye	15	265286	U	123
5	Sockeye	15	265287	U	108
5	Sockeye	15	265288	U	121
5	Sockeye	15	265289	U	112
5	Sockeye	15	265290	U	110
5	Sockeye	15	265291	U	127
5	Sockeye	15	265292	U	127
5	Sockeye	15	265293	U	123
5	Sockeye	15	265294	U	118
5	Sockeye	15	265295	U	110
5	Sockeye	15	265296	U	117
5	Sockeye	15	265297	U	113
5	Sockeye	15	265298	U	146
5	Sockeye	15	265299	U	114
5	Sockeye	15	265300	U	105
5	Sockeye	15	265301	U	118
5	Sockeye	15	265302	U	138
5	Sockeye	15	265303	U	127
5	Sockeye	15	265304	U	111
5	Sockeye	15	265305	U	124
5	Sockeye	15	265306	U	110
5	Sockeye	15	265307	U	109
5	Sockeye	15	265308	U	155
5	Sockeye	15	265309	U	117
5	Sockeye	15	265310	U	117
5	Sockeye	15	265311	U	124
5	Sockeye	15	265312	U	119
5	Sockeye	15	265313	U	122
5	Sockeye	15	265314	U	140
5	Sockeye	15	265315	U	138
5	Sockeye	15	265316	U	115
5	Sockeye	15	265317	U	114
5	Sockeye	15	265318	U	131
5	Sockeye	15	265319	U	117
5	Sockeye	15	265320	U	134
5	Sockeye	15	265321	U	109
5	Sockeye	15	265322	U	138
5	Sockeye	15	265323	U	122
5	Sockeye	15	265324	U	113
5	Sockeye	15	265325	U	111

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
5	Sockeye	15	265326	U	107
5	Sockeye	15	265327	U	120
5	Sockeye	15	265328	U	134
5	Sockeye	15	265329	U	116
5	Sockeye	15	265330	U	110
5	Sockeye	15	265331	U	126
5	Sockeye	15	265332	U	108
5	Sockeye	15	265333	U	116
5	Sockeye	15	265334	U	117
5	Sockeye	15	265335	U	136
5	Sockeye	15	265336	U	117
5	Sockeye	15	265337	U	108
5	Sockeye	15	265338	U	103
5	Sockeye	15	265368	M	119
5	Sockeye	15	265369	F	134
5	Sockeye	15	265370	M	117
5	Sockeye	15	265371	F	108
5	Sockeye	15	265372	F	116
5	Sockeye	15	265373	F	147
5	Sockeye	15	265374	F	117
5	Sockeye	15	265375	M	120
5	Sockeye	15	265376	F	149
5	Sockeye	15	265377	M	121
5	Sockeye	15	265378	F	112
5	Sockeye	15	265379	M	143
5	Sockeye	15	265380	F	125
5	Sockeye	15	265381	M	143
5	Sockeye	15	265382	F	129
5	Sockeye	15	265383	M	122
5	Sockeye	15	265384	F	110
5	Sockeye	15	265385	M	100
5	Sockeye	15	265386	F	124
5	Sockeye	15	265387	M	126
6	Chum	4	265389	U	116
6	Pink	4	265388	U	126
10	Chum	4	265592	F	134
10	Chum	4	265593	M	115
10	Chum	4	265594	F	133
10	Chum	4	265595	F	126
10	Chum	4	265596	M	116
10	Chum	4	265597	M	129
10	Chum	4	265598	F	128
10	Sockeye	4	265599	F	120
10	Sockeye	4	265600	M	119

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
10	Sockeye	4	265601	F	140
10	Sockeye	4	265602	M	134
10	Sockeye	4	265603	M	130
10	Sockeye	4	265604	M	117
11	Chinook	10	265618	M	199
11	Chum	10	265626	M	125
11	Chum	10	265627	M	127
11	Chum	10	265628	M	117
11	Chum	10	265629	F	130
11	Chum	10	265630	M	111
11	Chum	10	265631	M	123
11	Chum	10	265632	F	127
11	Chum	10	265633	M	130
11	Chum	10	265634	F	128
11	Chum	10	265635	F	142
11	Chum	10	265636	M	124
11	Chum	10	265637	M	132
11	Chum	10	265638	M	136
11	Chum	10	265639	F	123
11	Chum	10	265640	F	127
11	Chum	10	265641	M	126
11	Sockeye	10	265642	F	118
11	Sockeye	10	265643	F	124
11	Sockeye	10	265644	F	130
11	Sockeye	10	265645	M	125
11	Sockeye	10	265646	F	118
11	Sockeye	10	265647	F	130
11	Sockeye	10	265648	M	121
11	Sockeye	10	265649	M	126
12	Chum	5	265661	U	128
12	Chum	5	265662	U	147
12	Chum	5	265663	U	129
12	Chum	5	265664	U	140
12	Chum	5	265665	U	141
12	Chum	5	265666	U	127
12	Chum	5	265667	U	125
12	Chum	5	265668	U	126
12	Chum	5	265669	U	123
12	Chum	5	265670	U	125
12	Chum	5	265671	U	129
12	Chum	5	265672	U	121
12	Sockeye	5	265650	U	129
12	Sockeye	5	265651	U	115
12	Sockeye	5	265652	U	121

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
12	Sockeye	5	265653	U	127
12	Sockeye	5	265654	U	118
12	Sockeye	5	265655	U	136
12	Sockeye	5	265656	U	111
12	Sockeye	5	265657	U	134
12	Sockeye	5	265658	U	122
12	Sockeye	5	265659	U	114
12	Sockeye	5	265660	U	134
13	Chinook	5	265683	F	159
13	Chum	5	265674	U	149
13	Chum	5	265675	U	137
13	Coho	5	265680	M	161
13	Coho	5	265681	F	167
13	Sockeye	5	265685	F	126
13	Sockeye	5	265686	M	106
13	Sockeye	5	265687	M	119
13	Sockeye	5	265688	F	115
13	Sockeye	5	265689	M	118
13	Sockeye	5	265690	M	125
13	Sockeye	5	265691	M	131
14	Chum	5	265699	F	137
14	Chum	5	265700	F	136
14	Chum	5	265701	F	125
14	Chum	5	265702	F	157
14	Chum	5	265703	M	129
14	Chum	5	265704	F	140
14	Chum	5	265705	M	112
14	Chum	5	265706	F	122
14	Chum	5	265707	F	115
14	Chum	5	265708	M	137
14	Chum	5	265709	M	131
14	Coho	5	265698	F	208
14	Sockeye	5	265710	F	138
14	Sockeye	5	265711	F	127
14	Sockeye	5	265712	M	131
14	Sockeye	5	265713	F	126
14	Sockeye	5	265714	M	127
14	Sockeye	5	265715	M	125
14	Sockeye	5	265716	M	124
14	Sockeye	5	265717	M	110
14	Chinook	5		U	126
15	Chum	5	265727	U	130
15	Chum	5	265728	U	133
15	Chum	5	265729	U	128

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
15	Chum	5	265730	U	132
15	Chum	5	265731	U	132
15	Chum	5	265732	U	133
15	Chum	5	265733	U	133
15	Chum	5	265734	U	119
15	Chum	5	265735	U	141
15	Chum	5	265736	U	140
15	Chum	5	265737	U	145
15	Chum	5	265738	U	129
15	Chum	5	265739	U	128
15	Chum	5	265740	U	150
15	Chum	5	265741	U	130
15	Chum	5	265742	U	138
15	Chum	5	265743	U	132
15	Chum	5	265744	U	145
15	Chum	5	265745	U	129
15	Chum	5	265746	U	122
15	Chum	5	265747	U	125
15	Chum	5	265748	U	125
15	Chum	5	265749	U	129
15	Chum	5	265750	U	111
15	Chum	5	265751	U	141
15	Chum	5	265752	U	129
15	Chum	5	265753	U	129
15	Chum	5	265754	U	132
15	Chum	5	265755	U	133
15	Chum	5	265756	U	136
15	Chum	5	265757	U	143
15	Chum	5	265758	U	137
15	Chum	5	265759	U	146
15	Chum	5	265760	U	135
15	Chum	5	265761	U	125
15	Chum	5	265762	U	122
15	Chum	5	265763	U	125
15	Chum	5	265764	U	140
15	Chum	5	265765	U	119
15	Chum	5	265783	M	151
15	Chum	5	265784	F	135
15	Chum	5	265785	M	131
15	Chum	5	265786	F	125
15	Chum	5	265787	F	136
15	Chum	5	265788	M	147
15	Chum	5	265789	M	145
15	Chum	5	265790	M	168

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
15	Chum	5	265791	M	126
15	Chum	5	265792	M	148
15	Coho	5	265766	F	181
15	Coho	5	265767	F	182
15	Coho	5	265768	M	204
15	Coho	5	265769	M	188
15	Coho	5	265770	M	208
15	Coho	5	265771	M	187
15	Coho	5	265772	F	163
15	Sockeye	5	265793	F	139
15	Sockeye	5	265794	M	135
15	Sockeye	5	265795	F	134
15	Sockeye	5	265796	F	125
15	Sockeye	5	265797	M	110
15	Sockeye	5	265798	F	131
15	Sockeye	5	265799	M	141
15	Sockeye	5	265800	F	121
15	Sockeye	5	265801	M	113
15	Sockeye	5	265802	F	136
15	Sockeye	5	265803	F	117
15	Sockeye	5	265804	M	130
15	Sockeye	5	265805	M	122
15	Sockeye	5	265806	M	125
15	Sockeye	5	265807	M	122
15	Sockeye	5	265808	F	112
15	Sockeye	5	265809	F	121
15	Sockeye	5	265810	M	142
15	Sockeye	5	265811	F	116
15	Sockeye	5	265812	M	107
15	Sockeye	5	265813	F	137
15	Sockeye	5	265814	F	127
15	Sockeye	5	265815	F	134
15	Sockeye	5	265816	F	119
15	Sockeye	5	265817	M	157
15	Sockeye	5	265818	M	131
17	Chum	5	265926	U	140
17	Chum	5	265927	U	139
17	Chum	5	265928	U	123
17	Chum	5	265929	U	134
17	Chum	5	265930	U	134
17	Chum	5	265931	U	137
17	Chum	5	265932	U	119
17	Chum	5	265933	U	122
17	Chum	5	265934	U	132

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
17	Chum	5	265935	U	148
17	Chum	5	265936	U	136
17	Chum	5	265937	U	139
17	Chum	5	265938	U	140
17	Chum	5	265939	U	123
17	Chum	5	265940	U	142
17	Chum	5	265941	U	134
17	Chum	5	265942	U	134
17	Chum	5	265943	U	138
17	Chum	5	265944	U	134
17	Chum	5	265945	U	132
17	Chum	5	265946	U	133
17	Chum	5	265947	U	163
17	Chum	5	265948	U	132
17	Chum	5	265949	U	139
17	Chum	5	265950	U	143
17	Chum	5	265951	U	136
17	Chum	5	265952	U	131
17	Chum	5	265953	U	135
17	Chum	5	265954	U	132
17	Chum	5	265955	U	120
17	Chum	5	265956	U	121
17	Chum	5	265957	U	134
17	Chum	5	265958	U	135
17	Chum	5	265959	U	131
17	Chum	5	265960	U	137
17	Chum	5	265961	U	132
17	Chum	5	265962	U	135
17	Chum	5	266000	M	136
17	Chum	5	266001	M	129
17	Chum	5	266002	F	137
17	Chum	5	266003	M	131
17	Chum	5	266004	M	141
17	Chum	5	266005	M	137
17	Chum	5	266006	M	120
17	Chum	5	266007	M	138
17	Chum	5	266008	F	149
17	Chum	5	266009	M	135
17	Chum	5	266010	F	143
17	Chum	5	266011	M	136
17	Chum	5	266012	F	132
17	Chum	5	266013	M	140
17	Chum	5	266014	M	134
17	Sockeye	5	265963	U	121

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
17	Sockeye	5	265964	U	129
17	Sockeye	5	265965	U	127
17	Sockeye	5	265966	U	121
17	Sockeye	5	265967	U	106
17	Sockeye	5	265968	U	125
17	Sockeye	5	265969	U	115
17	Sockeye	5	265970	U	127
17	Sockeye	5	265971	U	124
17	Sockeye	5	265972	U	128
17	Sockeye	5	265973	U	125
17	Sockeye	5	265974	U	124
17	Sockeye	5	265975	U	120
17	Sockeye	5	265976	U	127
17	Sockeye	5	265977	U	123
17	Sockeye	5	265978	U	135
17	Sockeye	5	265979	U	125
17	Sockeye	5	265980	U	114
17	Sockeye	5	265981	U	112
17	Sockeye	5	265982	U	120
17	Sockeye	5	265983	U	133
17	Sockeye	5	265984	U	125
17	Sockeye	5	265985	F	119
17	Sockeye	5	265986	M	121
17	Sockeye	5	265987	M	140
17	Sockeye	5	265988	M	142
17	Sockeye	5	265989	F	130
17	Sockeye	5	265990	M	122
17	Sockeye	5	265991	M	123
17	Sockeye	5	265992	F	129
17	Sockeye	5	265993	M	131
17	Sockeye	5	265994	F	124
17	Sockeye	5	265995	M	125
17	Sockeye	5	265996	F	137
17	Sockeye	5	265997	F	122
17	Sockeye	5	265998	M	121
17	Sockeye	5	265999	F	141
18	Chinook				219
19	Coho	5	266146	M	256
20	Coho	5	266156	M	200
34	Chinook	5	266587	F	194
34	Chum	5	266593	M	146
34	Chum	5	266594	M	124
34	Chum	5	266595	F	126
34	Chum	5	266596	M	148

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
34	Coho	5	266583	M	167
34	Sockeye	5	266597	F	123
34	Sockeye	5	266598	M	125
34	Sockeye	5	266599	M	124
34	Sockeye	5	266600	M	137
35	Chum	5	266605	U	120
35	Chum	5	266606	U	114
35	Chum	5	266607	U	133
35	Chum	5	266608	U	137
35	Chum	5	266609	U	126
35	Chum	5	266610	U	124
35	Chum	5	266611	U	132
35	Chum	5	266612	U	137
35	Chum	5	266613	U	141
35	Chum	5	266614	U	144
35	Chum	5	266615	U	130
35	Chum	5	266616	U	138
35	Chum	5	266617	U	128
35	Chum	5	266618	U	135
35	Chum	5	266619	U	131
35	Chum	5	266620	U	125
35	Chum	5	266621	U	139
35	Chum	5	266622	U	142
35	Chum	5	266623	U	138
35	Chum	5	266624	U	152
35	Chum	5	266625	U	143
35	Chum	5	266626	U	143
35	Chum	5	266627	U	129
35	Chum	5	266628	U	125
35	Chum	5	266629	U	126
35	Chum	5	266630	U	143
35	Chum	5	266631	U	145
35	Chum	5	266632	U	114
35	Chum	5	266633	U	128
35	Chum	5	266634	U	137
35	Chum	5	266635	U	116
35	Chum	5	266636	U	132
35	Chum	5	266637	U	132
35	Chum	5	266638	U	139
35	Chum	5	266639	U	150
35	Chum	5	266640	U	150
35	Chum	5	266641	U	142
35	Chum	5	266642	U	133
35	Chum	5	266643	U	141

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
35	Chum	5	266644	U	126
35	Chum	5	266645	U	133
35	Chum	5	266646	U	135
35	Chum	5	266647	U	129
35	Chum	5	266648	U	134
35	Chum	5	266649	U	119
35	Chum	5	266650	U	143
35	Chum	5	266651	U	137
35	Chum	5	266652	U	142
35	Chum	5	266653	M	133
35	Chum	5	266654	M	140
35	Chum	5	266655	M	125
35	Chum	5	266656	F	143
35	Chum	5	266657	F	133
35	Chum	5	266658	F	130
35	Chum	5	266659	F	124
35	Chum	5	266660	M	132
35	Chum	5	266661	M	121
35	Chum	5	266662	M	128
35	Chum	5	266663	M	130
35	Chum	5	266664	M	130
35	Pink	5	266601	U	122
35	Sockeye	5	266665	U	133
35	Sockeye	5	266666	U	132
35	Sockeye	5	266667	U	133
35	Sockeye	5	266668	U	123
35	Sockeye	5	266669	U	115
35	Sockeye	5	266670	U	120
35	Sockeye	5	266671	U	137
35	Sockeye	5	266672	U	143
35	Sockeye	5	266673	U	131
35	Sockeye	5	266674	U	135
35	Sockeye	5	266675	U	137
35	Sockeye	5	266676	U	136
35	Sockeye	5	266677	U	139
35	Sockeye	5	266678	U	134
35	Sockeye	5	266679	U	137
35	Sockeye	5	266680	U	118
35	Sockeye	5	266681	U	127
35	Sockeye	5	266682	U	88
35	Sockeye	5	266683	U	129
35	Sockeye	5	266684	U	112
35	Sockeye	5	266685	U	140
35	Sockeye	5	266686	U	143

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
35	Sockeye	5	266687	U	141
35	Sockeye	5	266688	U	133
35	Sockeye	5	266689	U	121
35	Sockeye	5	266690	U	142
35	Sockeye	5	266691	U	128
35	Sockeye	5	266692	U	122
35	Sockeye	5	266693	U	135
35	Sockeye	5	266694	M	166
35	Sockeye	5	266695	M	144
35	Sockeye	5	266696	M	146
35	Sockeye	5	266697	F	136
35	Sockeye	5	266698	F	131
35	Sockeye	5	266699	M	151
35	Sockeye	5	266700	M	136
35	Sockeye	5	266701	M	96
35	Sockeye	5	266702	M	121
35	Sockeye	5	266703	M	127
35	Sockeye	5	266704	M	126
35	Sockeye	5	266705	M	119
35	Sockeye	5	266706	F	117
35	Sockeye	5	266707	M	131
35	Sockeye	5	266708	F	140
35	Sockeye	5	266709	M	137
35	Sockeye	5	266710	F	121
35	Sockeye	5	266711	F	149
35	Sockeye	5	266712	F	124
35	Sockeye	5	266713	F	125
35	Sockeye	5	266714	M	127
36	Chum	25	266715	U	125
36	Chum	25	266716	U	133
36	Chum	25	266717	U	118
36	Chum	25	266718	U	125
36	Chum	25	266719	U	124
36	Chum	25	266720	U	122
36	Chum	25	266721	U	137
36	Chum	25	266722	U	133
36	Chum	25	266723	U	118
36	Chum	25	266724	U	121
36	Chum	25	266725	U	127
36	Chum	25	266726	U	105
36	Chum	25	266727	U	128
36	Chum	25	266728	U	111
36	Chum	25	266729	U	126
36	Chum	25	266730	U	135

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
36	Chum	25	266731	U	130
36	Chum	25	266732	U	123
36	Chum	25	266733	U	125
36	Sockeye	25	266746	M	127
36	Sockeye	25	266747	F	130
36	Sockeye	25	266748	F	131
36	Sockeye	25	266749	M	140
36	Sockeye	25	266750	F	116
36	Sockeye	25	266751	M	113
36	Sockeye	25	266752	M	129
36	Sockeye	25	266753	M	132
37	Chum	5	266756	F	148
37	Coho	5	266754	M	217
37	Coho	5	266755	M	211
37	Sockeye	5	266757	M	126
37	Sockeye	5	266758	M	126
38	Chum	5	266759	U	132
38	Coho	5	266764	M	212
38	Coho	5	266765	M	206
39	Chum	5	266794	U	131
39	Chum	5	266795	U	131
39	Chum	5	266796	U	136
39	Chum	5	266797	U	140
39	Chum	5	266798	U	153
39	Chum	5	266799	U	151
39	Chum	5	266800	U	142
39	Chum	5	266801	U	134
39	Chum	5	266802	U	145
39	Chum	5	266803	U	121
39	Chum	5	266804	U	147
39	Chum	5	266805	U	136
39	Chum	5	266806	U	143
39	Chum	5	266807	U	134
39	Chum	5	266808	U	143
39	Chum	5	266809	U	139
39	Chum	5	266810	U	143
39	Chum	5	266811	U	131
39	Chum	5	266812	U	136
39	Chum	5	266813	U	121
39	Chum	5	266814	U	130
39	Chum	5	266815	U	149
39	Chum	5	266816	U	146
39	Chum	5	266817	U	137
39	Chum	5	266818	U	140

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
39	Chum	5	266819	U	140
39	Chum	5	266820	U	134
39	Chum	5	266821	U	133
39	Chum	5	266822	U	165
39	Chum	5	266823	U	140
39	Chum	5	266824	U	132
39	Chum	5	266825	U	131
39	Chum	5	266826	U	131
39	Chum	5	266827	U	140
39	Chum	5	266828	U	110
39	Chum	5	266829	U	150
39	Chum	5	266830	U	129
39	Chum	5	266831	U	142
39	Chum	5	266832	U	147
39	Chum	5	266833	U	155
39	Chum	5	266834	U	138
39	Chum	5	266835	U	135
39	Chum	5	266836	U	135
39	Chum	5	266837	U	148
39	Chum	5	266838	U	146
39	Chum	5	266839	U	140
39	Chum	5	266840	U	149
39	Chum	5	266841	U	134
39	Chum	5	266842	U	138
39	Chum	5	266843	U	146
39	Coho	5	266844	U	196
39	Coho	5	266845	U	224
39	Pink	5	266849	F	147
39	Pink	5	266850	M	131
39	Sockeye	5	266770	U	143
39	Sockeye	5	266771	U	124
39	Sockeye	5	266772	U	138
39	Sockeye	5	266773	U	125
39	Sockeye	5	266774	U	128
39	Sockeye	5	266775	U	119
39	Sockeye	5	266776	U	135
39	Sockeye	5	266777	U	126
39	Sockeye	5	266778	U	137
39	Sockeye	5	266779	U	126
39	Sockeye	5	266780	U	129
39	Sockeye	5	266781	U	131
39	Sockeye	5	266782	U	122
39	Sockeye	5	266783	U	129
39	Sockeye	5	266784	U	136

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
39	Sockeye	5	266785	U	129
39	Sockeye	5	266786	U	144
39	Sockeye	5	266787	U	126
39	Sockeye	5	266788	U	138
39	Sockeye	5	266789	U	136
39	Sockeye	5	266790	U	139
39	Sockeye	5	266791	U	131
39	Sockeye	5	266792	U	130
39	Sockeye	5	266793	U	134
39	Sockeye	5	266851	U	66
39	Sockeye	5	266852	F	129
39	Sockeye	5	266853	M	128
39	Sockeye	5	266854	M	141
39	Sockeye	5	266855	M	137
39	Sockeye	5	266856	F	143
39	Sockeye	5	266857	M	140
39	Sockeye	5	266858	M	142
39	Sockeye	5	266859	M	130
39	Sockeye	5	266860	F	139
40	Chum	30	266864	U	121
40	Chum	30	266865	U	123
40	Chum	30	266866	U	130
40	Chum	30	266867	U	113
40	Chum	30	266868	U	118
40	Chum	30	266869	U	106
40	Chum	30	266870	U	124
40	Chum	30	266871	U	110
40	Chum	30	266872	U	121
40	Chum	30	266873	U	115
40	Chum	30	266874	U	115
40	Chum	30	266875	U	112
40	Chum	30	266876	U	113
40	Chum	30	266877	U	117
40	Chum	30	266878	U	121
40	Chum	30	266879	U	126
40	Chum	30	266880	U	125
40	Chum	30	266881	U	126
40	Chum	30	266882	U	116
40	Chum	30	266883	U	100
40	Chum	30	266884	U	110
40	Chum	30	266885	U	102
40	Chum	30	266886	U	106
40	Chum	30	266887	U	129
40	Pink	30	266861	U	91

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
40	Pink	30	266862	U	87
40	Pink	30	266863	U	82
40	Sockeye	30	266888	F	113
40	Sockeye	30	266889	F	116
40	Sockeye	30	266890	M	134
40	Sockeye	30	266891	M	145
40	Sockeye	30	266892	F	112
40	Sockeye	30	266893	F	127
40	Sockeye	30	266894	F	102
40	Sockeye	30	266895	F	103
40	Sockeye	30	266896	M	113
40	Sockeye	30	266897	M	105
40	Sockeye	30	266898	M	119
40	Sockeye	30	266899	M	122
40	Sockeye	30	266900	F	105
40	Sockeye	30	266901	M	118
40	Sockeye	30	266902	M	115
40	Sockeye	30	266903	F	116
40	Sockeye	30	266904	M	112
40	Sockeye	30	266905	F	121
41	Chinook	5	266920	F	139
41	Chum	5	266907	U	117
41	Chum	5	266908	U	111
41	Coho	5	266909	F	152
41	Coho	5	266910	F	178
41	Coho	5	266911	F	156
41	Coho	5	266912	M	194
41	Coho	5	266913	M	177
41	Coho	5	266914	F	204
41	Coho	5	266915	M	156
41	Coho	5	266916	F	176
41	Coho	5	266917	M	168
41	Coho	5	266918	M	154
41	Coho	5	266919	F	150
41	Sockeye	5	266906	U	113
42	Chinook	5	266925	F	155
42	Chinook	5	266926	M	110
42	Chinook	5	266927	M	142
42	Coho	5	266923	M	117
42	Coho	5	266924	M	159
44	Chinook	5	267151	F	175
44	Chum	5	267Pink	U	116
44	Chum	5	267084	U	120
44	Chum	5	267085	U	121

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
44	Chum	5	267086	U	116
44	Chum	5	267087	U	123
44	Chum	5	267088	U	132
44	Chum	5	267089	U	123
44	Chum	5	267090	U	126
44	Chum	5	267091	U	128
44	Chum	5	267092	U	123
44	Chum	5	267093	U	126
44	Chum	5	267094	U	131
44	Chum	5	267095	U	141
44	Chum	5	267096	U	131
44	Chum	5	267097	U	120
44	Chum	5	267098	U	122
44	Chum	5	267099	U	110
44	Chum	5	267100	U	120
44	Chum	5	267101	U	136
44	Chum	5	267102	U	142
44	Chum	5	267103	U	130
44	Chum	5	267104	U	131
44	Chum	5	267105	U	120
44	Chum	5	267106	U	117
44	Chum	5	267107	U	125
44	Chum	5	267109	U	130
44	Chum	5	267110	U	140
44	Chum	5	267111	U	119
44	Chum	5	267112	U	132
44	Chum	5	267113	U	126
44	Chum	5	267114	U	138
44	Chum	5	267115	U	127
44	Chum	5	267116	U	134
44	Chum	5	267117	U	137
44	Chum	5	267118	U	120
44	Chum	5	267119	U	132
44	Chum	5	267120	U	122
44	Chum	5	267121	U	116
44	Chum	5	267122	U	130
44	Chum	5	267123	U	122
44	Chum	5	267124	U	121
44	Chum	5	267125	U	123
44	Chum	5	267126	U	123
44	Chum	5	267127	U	129
44	Chum	5	267128	U	120
44	Chum	5	267129	U	112
44	Chum	5	267130	U	122

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
44	Chum	5	267131	U	127
44	Chum	5	267132	U	131
44	Chum	5	267133	U	142
44	Chum	5	267134	U	125
44	Chum	5	267135	U	116
44	Chum	5	267136	U	125
44	Chum	5	267137	U	127
44	Chum	5	267138	U	121
44	Chum	5	267139	U	119
44	Chum	5	267140	U	132
44	Chum	5	267141	U	117
44	Chum	5	267142	U	118
44	Chum	5	267143	U	122
44	Coho	5	267144	M	190
44	Coho	5	267145	F	260
44	Coho	5	267146	F	189
44	Coho	5	267147	M	212
44	Coho	5	267148	M	161
44	Coho	5	267149	M	148
44	Coho	5	267150	M	137
44	Pink	5	267155	M	151
44	Pink	5	267156	F	121
44	Pink	5	267157	M	125
44	Pink	5	267158	M	120
44	Pink	5	267159	F	121
44	Pink	5	267160	M	115
44	Pink	5	267161	F	118
44	Pink	5	267162	M	120
44	Pink	5	267163	F	129
44	Pink	5	267164	M	118
44	Sockeye	5	267165	M	146
44	Sockeye	5	267166	M	125
44	Sockeye	5	267167	M	131
44	Sockeye	5	267168	F	121
44	Sockeye	5	267169	F	112
44	Sockeye	5	267170	F	127
44	Sockeye	5	267171	M	124
44	Sockeye	5	267172	M	119
44	Sockeye	5	267173	M	112
44	Sockeye	5	267174	F	136
44	Sockeye	5	267175	M	126
45	Chinook	5	267336	M	123
45	Chinook	5	267337	F	126
45	Chum	5	267176	U	131

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
45	Chum	5	267177	U	112
45	Chum	5	267178	U	129
45	Chum	5	267179	U	105
45	Chum	5	267180	U	130
45	Chum	5	267181	U	132
45	Chum	5	267182	U	136
45	Chum	5	267183	U	107
45	Chum	5	267184	U	123
45	Chum	5	267185	U	120
45	Chum	5	267186	U	122
45	Chum	5	267187	U	138
45	Chum	5	267188	U	141
45	Chum	5	267189	U	130
45	Chum	5	267190	U	106
45	Chum	5	267191	U	104
45	Chum	5	267192	U	138
45	Chum	5	267193	U	121
45	Chum	5	267194	U	143
45	Chum	5	267195	U	130
45	Chum	5	267196	U	158
45	Chum	5	267197	U	118
45	Chum	5	267198	U	137
45	Chum	5	267199	U	117
45	Chum	5	267200	U	120
45	Chum	5	267201	U	113
45	Chum	5	267202	U	115
45	Chum	5	267203	U	124
45	Chum	5	267204	U	120
45	Chum	5	267205	U	132
45	Chum	5	267206	U	133
45	Chum	5	267207	U	115
45	Chum	5	267208	U	113
45	Chum	5	267209	U	127
45	Chum	5	267210	U	116
45	Chum	5	267211	U	116
45	Chum	5	267212	U	114
45	Chum	5	267213	U	112
45	Chum	5	267214	U	112
45	Chum	5	267215	U	128
45	Chum	5	267216	U	136
45	Chum	5	267217	U	123
45	Chum	5	267218	U	124
45	Chum	5	267219	U	135
45	Chum	5	267220	U	124

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
45	Chum	5	267221	U	107
45	Chum	5	267222	U	124
45	Chum	5	267223	U	128
45	Chum	5	267224	U	115
45	Chum	5	267225	U	122
45	Chum	5	267226	U	132
45	Chum	5	267227	U	126
45	Chum	5	267228	U	122
45	Chum	5	267229	U	134
45	Chum	5	267230	U	118
45	Chum	5	267231	U	126
45	Chum	5	267232	U	141
45	Chum	5	267233	U	115
45	Chum	5	267234	U	139
45	Chum	5	267235	U	119
45	Chum	5	267236	U	129
45	Chum	5	267237	U	113
45	Chum	5	267238	U	122
45	Chum	5	267239	U	130
45	Chum	5	267240	U	120
45	Chum	5	267241	U	132
45	Chum	5	267242	U	130
45	Chum	5	267243	U	130
45	Chum	5	267244	U	131
45	Chum	5	267245	U	124
45	Chum	5	267246	U	111
45	Chum	5	267247	U	109
45	Chum	5	267248	U	116
45	Chum	5	267249	U	120
45	Chum	5	267250	U	112
45	Chum	5	267251	U	156
45	Chum	5	267252	U	137
45	Chum	5	267253	U	132
45	Chum	5	267254	U	122
45	Chum	5	267255	U	126
45	Chum	5	267256	U	131
45	Chum	5	267257	U	148
45	Chum	5	267258	U	113
45	Chum	5	267259	U	130
45	Chum	5	267260	U	96
45	Chum	5	267261	U	124
45	Chum	5	267262	U	113
45	Chum	5	267263	U	113
45	Chum	5	267264	U	126

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
45	Chum	5	267265	U	125
45	Chum	5	267266	U	119
45	Chum	5	267267	U	124
45	Chum	5	267268	U	142
45	Chum	5	267269	U	110
45	Chum	5	267270	U	100
45	Chum	5	267271	U	111
45	Chum	5	267272	U	152
45	Chum	5	267273	U	120
45	Chum	5	267274	U	116
45	Chum	5	267275	U	132
45	Chum	5	267340	F	131
45	Chum	5	267341	M	111
45	Chum	5	267342	M	113
45	Chum	5	267343	M	117
45	Chum	5	267344	F	131
45	Chum	5	267345	F	147
45	Chum	5	267346	M	118
45	Chum	5	267347	F	128
45	Chum	5	267348	M	116
45	Chum	5	267349	M	98
45	Chum	5	267350	M	137
45	Chum	5	267351	M	133
45	Chum	5	267352	M	116
45	Chum	5	267353	M	129
45	Chum	5	267354	M	120
45	Coho	5	267319	M	197
45	Coho	5	267320	F	191
45	Coho	5	267321	M	147
45	Coho	5	267322	M	189
45	Coho	5	267323	F	194
45	Coho	5	267324	F	157
45	Coho	5	267325	M	195
45	Coho	5	267326	F	196
45	Coho	5	267327	F	188
45	Coho	5	267328	M	191
45	Coho	5	267329	F	192
45	Coho	5	267330	M	188
45	Coho	5	267331	F	197
45	Coho	5	267332	F	182
45	Coho	5	267333	F	197
45	Coho	5	267334	F	191
45	Coho	5	267335	M	183
45	Pink	5	267355	M	115

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
45	Pink	5	267356	M	123
45	Pink	5	267357	F	120
45	Pink	5	267358	F	107
45	Pink	5	267359	M	110
45	Pink	5	267360	M	112
45	Pink	5	267361	F	121
45	Pink	5	267362	M	99
45	Pink	5	267363	M	124
45	Pink	5	267364	F	124
45	Pink	5	267365	F	111
45	Sockeye	5	267276	U	120
45	Sockeye	5	267277	U	136
45	Sockeye	5	267278	U	122
45	Sockeye	5	267279	U	119
45	Sockeye	5	267280	U	115
45	Sockeye	5	267281	U	125
45	Sockeye	5	267282	U	140
45	Sockeye	5	267283	U	131
45	Sockeye	5	267284	U	122
45	Sockeye	5	267285	U	129
45	Sockeye	5	267286	U	120
45	Sockeye	5	267287	U	122
45	Sockeye	5	267288	U	122
45	Sockeye	5	267289	U	150
45	Sockeye	5	267290	U	110
45	Sockeye	5	267291	U	127
45	Sockeye	5	267292	U	111
45	Sockeye	5	267293	U	113
45	Sockeye	5	267294	U	145
45	Sockeye	5	267295	U	109
45	Sockeye	5	267296	U	130
45	Sockeye	5	267297	U	135
45	Sockeye	5	267298	U	133
45	Sockeye	5	267299	U	116
45	Sockeye	5	267300	U	106
45	Sockeye	5	267301	U	111
45	Sockeye	5	267302	U	115
45	Sockeye	5	267303	U	114
45	Sockeye	5	267304	U	121
45	Sockeye	5	267305	U	112
45	Sockeye	5	267306	U	110
45	Sockeye	5	267307	U	122
45	Sockeye	5	267308	U	110
45	Sockeye	5	267309	U	110

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
45	Sockeye	5	267310	U	122
45	Sockeye	5	267311	U	115
45	Sockeye	5	267312	U	126
45	Sockeye	5	267313	U	112
45	Sockeye	5	267314	U	103
45	Sockeye	5	267315	U	114
45	Sockeye	5	267316	U	120
45	Sockeye	5	267317	U	111
45	Sockeye	5	267318	U	137
45	Sockeye	5	267366	F	134
45	Sockeye	5	267367	M	116
45	Sockeye	5	267368	M	109
45	Sockeye	5	267369	F	114
45	Sockeye	5	267370	M	113
45	Sockeye	5	267371	M	120
45	Sockeye	5	267372	F	156
45	Sockeye	5	267373	M	112
45	Sockeye	5	267374	F	132
45	Sockeye	5	267375	F	122
45	Sockeye	5	267376	F	133
45	Sockeye	5	267377	M	140
45	Sockeye	5	267378	M	133
45	Sockeye	5	267379	M	137
45	Sockeye	5	267380	M	124
45	Sockeye	5	267381	M	129
45	Sockeye	5	267382	M	117
45	Sockeye	5	267383	M	138
45	Sockeye	5	267384	F	121
45	Sockeye	5	267385	F	127
46	Chinook	5	267437	U	120
46	Chinook	5	267438	U	106
46	Chinook	5	267439	U	108
46	Chinook	5	267440	U	138
46	Chinook	5	267441	U	128
46	Chinook	5	267442	U	141
46	Chinook	5	267443	U	160
46	Chinook	5	267444	U	136
46	Chinook	5	267445	U	134
46	Coho	5	267463	F	196
46	Coho	5	267464	F	207
46	Coho	5	267465	F	189
46	Coho	5	267466	M	182
46	Coho	5	267467	M	195
46	Coho	5	267468	M	207

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
46	Coho	5	267469	M	163
46	Coho	5	267470	F	166
46	Coho	5	267471	F	222
46	Coho	5	267472	F	164
46	Coho	5	267473	M	193
46	Coho	5	267474	F	165
46	Coho	5	267475	F	193
46	Coho	5	267476	M	211
46	Coho	5	267477	M	165
46	Coho	5	267478	M	194
46	Coho	5	267479	F	197
46	Coho	5	267480	F	187
46	Coho	5	267481	M	173
46	Coho	5	267482	M	192
46	Coho	5	267483	F	175
46	Pink	5	267447	U	96
46	Pink	5	267448	U	100
46	Pink	5	267449	U	118
46	Pink	5	267450	U	99
46	Pink	5	267451	U	113
46	Pink	5	267452	U	106
46	Pink	5	267453	U	87
46	Pink	5	267454	U	100
46	Pink	5	267455	U	111
46	Pink	5	267456	U	106
46	Pink	5	267457	U	113
46	Pink	5	267458	U	109
46	Pink	5	267459	U	107
46	Pink	5	267460	U	123
46	Pink	5	267461	U	110
46	Pink	5	267462	U	117
46	Sockeye	5	267388	U	112
46	Sockeye	5	267389	U	113
46	Sockeye	5	267390	U	107
46	Sockeye	5	267391	U	115
46	Sockeye	5	267392	U	99
46	Sockeye	5	267393	U	145
46	Sockeye	5	267394	U	136
46	Sockeye	5	267395	U	129
46	Sockeye	5	267396	U	133
46	Sockeye	5	267397	U	121
46	Sockeye	5	267398	U	122
46	Sockeye	5	267399	U	115
46	Sockeye	5	267400	U	105

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
46	Sockeye	5	267401	U	115
46	Sockeye	5	267402	U	114
46	Sockeye	5	267403	U	135
46	Sockeye	5	267404	U	122
46	Sockeye	5	267405	U	118
46	Sockeye	5	267406	U	105
46	Sockeye	5	267407	U	109
46	Sockeye	5	267408	U	104
46	Sockeye	5	267409	U	107
46	Sockeye	5	267410	U	109
46	Sockeye	5	267411	U	136
46	Sockeye	5	267412	U	100
46	Sockeye	5	267413	U	108
46	Sockeye	5	267414	U	113
46	Sockeye	5	267415	U	125
46	Sockeye	5	267416	U	116
46	Sockeye	5	267417	U	79
46	Sockeye	5	267418	U	132
46	Sockeye	5	267419	U	117
46	Sockeye	5	267420	U	118
46	Sockeye	5	267421	U	107
46	Sockeye	5	267422	U	106
46	Sockeye	5	267423	U	113
46	Sockeye	5	267424	U	107
46	Sockeye	5	267425	U	120
46	Sockeye	5	267426	U	114
46	Sockeye	5	267427	U	116
46	Sockeye	5	267428	U	123
46	Sockeye	5	267429	U	127
46	Sockeye	5	267430	U	122
46	Sockeye	5	267431	U	109
46	Sockeye	5	267432	U	115
46	Sockeye	5	267433	U	126
46	Sockeye	5	267434	U	118
46	Sockeye	5	267435	U	120
46	Sockeye	5	267436	U	117
47	Chinook	30	267580	M	123
47	Chinook	30	267581	M	136
47	Chinook	30	267582	F	118
47	Chinook	30	267583	M	132
47	Chinook	30	267584	F	133
47	Chinook	30	267585	M	180
47	Chum	30	267484	U	141
47	Chum	30	267485	U	105

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
47	Chum	30	267486	U	141
47	Chum	30	267487	U	115
47	Chum	30	267488	U	122
47	Chum	30	267489	U	112
47	Chum	30	267490	U	116
47	Chum	30	267491	U	115
47	Chum	30	267492	U	116
47	Chum	30	267493	U	117
47	Chum	30	267494	U	117
47	Chum	30	267495	U	121
47	Chum	30	267496	U	121
47	Chum	30	267497	U	115
47	Chum	30	267498	U	121
47	Chum	30	267499	U	125
47	Chum	30	267500	U	114
47	Chum	30	267501	U	109
47	Chum	30	267502	U	102
47	Chum	30	267503	U	112
47	Chum	30	267504	U	115
47	Chum	30	267505	U	114
47	Chum	30	267506	U	116
47	Chum	30	267507	U	115
47	Chum	30	267508	U	120
47	Chum	30	267509	U	116
47	Chum	30	267510	U	116
47	Chum	30	267511	U	122
47	Chum	30	267512	U	173
47	Chum	30	267513	U	114
47	Chum	30	267514	U	109
47	Chum	30	267515	U	119
47	Chum	30	267516	U	110
47	Chum	30	267517	U	119
47	Chum	30	267518	U	121
47	Chum	30	267519	U	110
47	Chum	30	267520	U	130
47	Chum	30	267521	U	117
47	Chum	30	267522	U	116
47	Chum	30	267523	U	120
47	Chum	30	267524	U	103
47	Chum	30	267525	U	116
47	Chum	30	267526	U	115
47	Chum	30	267527	U	122
47	Chum	30	267528	U	109
47	Chum	30	267529	U	111

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
47	Chum	30	267530	U	105
47	Chum	30	267531	U	110
47	Chum	30	267532	U	112
47	Chum	30	267533	U	99
47	Chum	30	267534	U	121
47	Chum	30	267535	U	129
47	Chum	30	267536	U	115
47	Chum	30	267537	U	121
47	Chum	30	267538	U	106
47	Chum	30	267539	U	118
47	Chum	30	267540	U	106
47	Chum	30	267541	U	138
47	Chum	30	267542	U	108
47	Chum	30	267543	U	110
47	Chum	30	267544	U	115
47	Chum	30	267545	U	125
47	Chum	30	267546	U	115
47	Chum	30	267547	U	116
47	Chum	30	267548	U	114
47	Chum	30	267549	U	117
47	Chum	30	267550	U	109
47	Chum	30	267551	U	111
47	Chum	30	267552	U	108
47	Chum	30	267553	U	111
47	Chum	30	267554	U	116
47	Chum	30	267555	U	117
47	Chum	30	267556	U	112
47	Chum	30	267557	U	116
47	Chum	30	267558	U	119
47	Chum	30	267559	U	121
47	Chum	30	267560	U	112
47	Chum	30	267561	U	118
47	Chum	30	267562	U	112
47	Chum	30	267563	U	123
47	Chum	30	267564	U	110
47	Chum	30	267565	U	118
47	Chum	30	267566	U	120
47	Chum	30	267567	U	118
47	Chum	30	267568	U	118
47	Chum	30	267569	U	115
47	Chum	30	267570	U	110
47	Chum	30	267571	U	107
47	Chum	30	267572	U	103
47	Chum	30	267573	U	116

Set Number	Species	Min Net Depth	Fish Number	Sex **M**=male, **F**=female **U**=unknown	Fork Length (mm)
47	Chum	30	267574	U	132
47	Chum	30	267575	U	116
47	Chum	30	267576	U	126
47	Chum	30	267577	U	125
47	Chum	30	267578	U	123
47	Chum	30	267579	U	117
47	Chum	30	267587	M	123
47	Chum	30	267588	M	116
47	Chum	30	267589	M	125
47	Chum	30	267590	M	111
47	Chum	30	267591	M	118
47	Chum	30	267592	F	114
47	Chum	30	267593	M	118
47	Chum	30	267594	F	128
47	Chum	30	267595	M	114
47	Chum	30	267596	M	148
47	Pink	30	267597	F	110
47	Pink	30	267598	M	123
47	Pink	30	267599	F	121
47	Pink	30	267600	M	108
47	Pink	30	267601	M	106
47	Pink	30	267602	F	117
47	Pink	30	267603	M	127
47	Pink	30	267604	M	105
47	Sockeye	30	267605	M	119
47	Sockeye	30	267606	M	125
47	Sockeye	30	267607	M	115
47	Sockeye	30	267608	F	111
47	Sockeye	30	267609	M	117
47	Sockeye	30	267610	F	115
47	Sockeye	30	267611	M	87
47	Sockeye	30	267612	M	116
47	Sockeye	30	267613	M	118
47	Sockeye	30	267614	F	119
49	Chinook	5	267618	U	106
49	Chinook	5	267619	U	116
49	Chum	5	267639	U	120
49	Chum	5	267640	U	125
49	Chum	5	267641	U	125
49	Chum	5	267642	U	122
49	Chum	5	267643	U	115
49	Chum	5	267644	U	130
49	Chum	5	267645	U	135
49	Chum	5	267646	U	111

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
49	Chum	5	267647	U	145
49	Chum	5	267648	U	120
49	Chum	5	267649	U	118
49	Chum	5	267650	U	115
49	Chum	5	267651	U	122
49	Chum	5	267652	U	111
49	Chum	5	267653	U	128
49	Chum	5	267654	U	115
49	Chum	5	267655	U	122
49	Chum	5	267656	U	132
49	Chum	5	267657	U	133
49	Chum	5	267658	U	123
49	Chum	5	267659	U	131
49	Chum	5	267660	U	112
49	Chum	5	267661	U	127
49	Chum	5	267662	U	119
49	Chum	5	267663	U	123
49	Chum	5	267664	U	130
49	Chum	5	267665	U	133
49	Chum	5	267666	U	126
49	Chum	5	267667	U	118
49	Chum	5	267668	U	120
49	Chum	5	267669	U	124
49	Chum	5	267670	U	120
49	Chum	5	267671	U	131
49	Chum	5	267672	U	141
49	Chum	5	267673	U	126
49	Chum	5	267674	U	120
49	Chum	5	267675	U	116
49	Chum	5	267676	U	142
49	Chum	5	267677	U	135
49	Chum	5	267678	U	112
49	Chum	5	267679	U	130
49	Chum	5	267680	U	109
49	Chum	5	267681	U	120
49	Chum	5	267682	U	129
49	Chum	5	267683	U	120
49	Chum	5	267684	U	132
49	Chum	5	267685	U	120
49	Chum	5	267686	U	116
49	Chum	5	267687	U	130
49	Chum	5	267688	U	128
49	Chum	5	267689	U	132
49	Chum	5	267690	U	127

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
49	Chum	5	267691	U	119
49	Chum	5	267692	U	110
49	Chum	5	267693	U	118
49	Chum	5	267694	U	134
49	Chum	5	267695	U	122
49	Chum	5	267696	U	100
49	Chum	5	267697	U	109
49	Chum	5	267698	U	125
49	Chum	5	267729	M	128
49	Chum	5	267730	F	123
49	Chum	5	267731	M	126
49	Chum	5	267732	M	136
49	Chum	5	267733	M	129
49	Chum	5	267734	M	105
49	Chum	5	267735	M	130
49	Chum	5	267736	M	123
49	Chum	5	267737	M	124
49	Chum	5	267738	M	140
49	Chum	5	267739	M	112
49	Chum	5	267740	F	129
49	Chum	5	267741	F	119
49	Chum	5	267742	M	117
49	Chum	5	267743	M	137
49	Coho	5	267699	M	216
49	Coho	5	267700	M	205
49	Coho	5	267701	F	193
49	Coho	5	267702	F	181
49	Coho	5	267703	F	190
49	Coho	5	267704	F	195
49	Coho	5	267705	F	219
49	Coho	5	267706	M	208
49	Coho	5	267707	F	201
49	Coho	5	267708	M	200
49	Coho	5	267709	F	203
49	Coho	5	267710	F	211
49	Coho	5	267711	F	204
49	Coho	5	267712	M	200
49	Coho	5	267713	M	200
49	Coho	5	267714	F	206
49	Coho	5	267715	F	197
49	Coho	5	267716	F	196
49	Coho	5	267717	M	195
49	Coho	5	267718	M	212
49	Coho	5	267719	F	189

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
49	Coho	5	267720	F	189
49	Coho	5	267721	F	201
49	Coho	5	267722	M	208
49	Coho	5	267723	F	200
49	Coho	5	267724	M	212
49	Coho	5	267725	F	221
49	Coho	5	267726	F	167
49	Pink	5	267744	F	116
49	Pink	5	267745	M	128
49	Pink	5	267746	M	121
49	Pink	5	267747	F	121
49	Pink	5	267748	F	125
49	Pink	5	267749	M	121
49	Pink	5	267750	M	117
49	Pink	5	267751	F	120
49	Pink	5	267752	F	112
49	Pink	5	267753	F	123
49	Pink	5	267754	U	122
49	Pink	5	267755	U	120
49	Pink	5	267756	U	113
49	Pink	5	267757	U	110
49	Pink	5	267758	U	127
49	Pink	5	267759	U	119
49	Pink	5	267760	U	121
49	Pink	5	267761	U	107
49	Pink	5	267762	U	123
49	Pink	5	267763	F	131
49	Pink	5	267764	M	121
49	Sockeye	5	267626	U	113
49	Sockeye	5	267627	U	120
49	Sockeye	5	267628	U	113
49	Sockeye	5	267629	U	114
49	Sockeye	5	267630	U	121
49	Sockeye	5	267631	U	105
49	Sockeye	5	267632	U	111
49	Sockeye	5	267633	U	108
49	Sockeye	5	267634	U	117
49	Sockeye	5	267635	U	114
49	Sockeye	5	267636	U	92
49	Sockeye	5	267637	U	116
49	Sockeye	5	267638	U	117
49	Sockeye	5	267765	F	113
49	Sockeye	5	267766	M	135
49	Sockeye	5	267767	M	114

Set Number	Species	Min Net Depth	Fish Number	Sex M=male, F=female U=unknown	Fork Length (mm)
49	Sockeye	5	267768	F	107
49	Sockeye	5	267769	F	117
49	Sockeye	5	267770	M	121
49	Sockeye	5	267771	F	136
49	Sockeye	5	267772	M	115
49	Sockeye	5	267773	F	125
49	Sockeye	5	267774	M	114
49	Sockeye	5	267775	M	121
49	Sockeye	5	267776	M	136
49	Sockeye	5	267777	M	118
49	Sockeye	5	267778	M	119
49	Sockeye	5	267779	M	118
49	Sockeye	5	267780	F	125
49	Sockeye	5	267781	F	119
49	Sockeye	5	267782	F	124
49	Sockeye	5	267783	M	131
49	Sockeye	5	267784	M	131

Appendix III.

Data showing the visual observations of lice numbers, scale loss rating, and severity/type of damage. The species, set location, date of collection (Date) fish number (Fish No.), code, length (mm), weight (g), visual count of sea lice (# sea lice), scale loss indicating the severity of scale loss level (0 = 0% loss, 1 = 1- 24% loss, 2 = 25 - 74%l loss, 3 = 75 - 100 % loss) and the area in which the scale loss was located (head (H), body (B), or tail (T)), the severity and location of damage (0 = no damage, 1 = slight discoloration, possibly caused by small amounts of haemorrhaging, 2 = discoloration more severe and haemorrhaging more present, 3 = severe haemorrhaging, erosion of dermis, likely due to copepod activity, 5 = severe lesions, 6 = haemorrhagic areas on fins and underbelly, 7 = fungus along lateral line, secondary infection, 8 = heavy Anisakis infection through the flesh, 9 = lamprey wounds) and for fish with more than one area of damage the columns sea lice (2). Coho results are not summarized in the text.

Species	Set	Date	Fish No.	Code	Length (mm)	Weight (g)	# sea lice visual count	Scale loss Severity	Scale loss Area	Sea lice Severity	Sea lice Area	Sea lice (2) Severity	Sea lice (2) Area
Chum	5	17-Jul-01	10	-	110	14.9	0	0	-	0	-	-	-
Chum	5	17-Jul-01	6	-	128	23	0	1	B/T	0	-	-	-
Chum	5	17-Jul-01	48	-	121.5	21.1	0	1	B/T	0	-	-	-
Chum	5	17-Jul-01	19	-	120	20	0	0	-	4	B	-	-
Chum	18	17-Jul-01	33	-	124	22.9	1	0	-	0	-	-	-
Chum	7	17-Jul-01	1	-	116	17.2	1	1	B/T	0	-	-	-
Chum	5	17-Jul-01	15	-	115.5	17.1	1	1	B/T	0	-	-	-
Chum	18	17-Jul-01	41	-	124.5	20	1	1	T	0	-	-	-
Chum	18	17-Jul-01	46	-	123	21.6	1	1	T	0	-	-	-
Chum	5	17-Jul-01	12	-	117	18.5	2	1	B/T	0	-	-	-
Chum	8	17-Jul-01	64	-	122	20.5	0	0	-	0	-	-	-
Chum	7	17-Jul-01	40	-	104.5	14.3	0	1	B	0	-	-	-
Chum	8	17-Jul-01	79	-	121	20.6	0	1	B/T	0	-	-	-
Chum	8	17-Jul-01	56	-	122	23.4	1	0	-	0	-	-	-
Chum	7	17-Jul-01	38	-	118.5	19.8	1	1	B	0	-	-	-
Chum	7	17-Jul-01	52	-	142	32	2	1	B	0	-	-	-
Chum	7	17-Jul-01	54	-	113	17.6	2	1	B	0	-	-	-
Chum	8	17-Jul-01	66	-	117	17	2	1	B/T	0	-	-	-
Chum	9	17-Jul-01	89	-	130	25	2	1	B/T	0	-	-	-
Chum	7	17-Jul-01	28	-	102.5	12.1	32	1	B	4	B	-	-
Chum	10	17-Jul-01	3	-	97.5	10.9	0	0	-	0	-	-	-

Chum	10	17-Jul-01	10	-	95	8.7	0	0	-	0	-	-	-
Chum	10	17-Jul-01	20	-	94.5	8.6	0	0	-	0	-	-	-
Chum	10	17-Jul-01	1	-	103	15.2	0	1	B	0	-	-	-
Chum	10	17-Jul-01	8	-	122	20.8	0	1	B	0	-	-	-
Chum	10	17-Jul-01	19	-	112	16.1	0	1	B	0	-	-	-
Chum	10	17-Jul-01	22	-	105	13	0	1	B	0	-	-	-
Chum	10	17-Jul-01	30	-	104	12.7	0	1	B	0	-	-	-
Chum	10	17-Jul-01	26	-	103	11.7	0	0	-	4	B	-	-
Chum	10	17-Jul-01	29	-	100	10.9	0	1	B	4	B	-	9
Chum	20	17-Jul-01	26	-	111	12.9	0	0	-	0	-	-	-
Chum	20	17-Jul-01	51	-	115.5	16.2	0	0	-	0	-	-	-
Chum	20	17-Jul-01	20	-	107	14.2	0	1	B	0	-	-	-
Chum	20	17-Jul-01	31	-	115.5	17.6	0	1	B	0	-	-	-
Chum	20	17-Jul-01	37	-	108	13.8	0	1	B	0	-	-	-
Chum	20	17-Jul-01	38	-	104.5	13.5	0	1	B	0	-	-	-
Chum	19	17-Jul-01	1	-	105.5	12.9	0	1	B	9	B	9	B
Chum	19	17-Jul-01	10	-	110	15.4	1	1	B/T	0	-	-	-
Chum	20	17-Jul-01	68	-	114	16.1	1	1	B	0	-	-	-
Chum	20	17-Jul-01	71	-	107	13.3	1	1	B	0	-	-	-
Coho	18	19-Jul-01	2	-	150.5	49.5	11	1	B/T	4	B	-	-
Coho	18	19-Jul-01	1	-	159	58	12	1	B/T	0	-	-	-
Coho	6	19-Jul-01	1	-	190.5	94.9	3	1	B/T	0	-	-	-
Coho	10	19-Jul-01	10	-	118	20.5	0	0	-	0	-	-	-
Coho	10	19-Jul-01	2	-	146	42.2	0	1	B	0	-	-	-
Coho	10	19-Jul-01	3	-	116	19.1	0	1	B/T	0	-	-	-
Coho	10	19-Jul-01	4	-	142.5	37.2	0	1	B/T	0	-	-	-
Coho	10	19-Jul-01	8	-	128	30.8	0	1	B	0	-	-	-
Coho	10	19-Jul-01	7	-	133	27.9	0	1	B/T	4	B	-	-
Coho	11	19-Jul-01	11	-	133	30.4	2	1	B/T	0	-	-	-
Coho	39	24-Jul-01	1	*	108	17.3	1	1	B	0	-	-	-
Pink	5	18-Jul-01	23	-	70	3.3	0	0	-	0	-	-	-
Pink	18	18-Jul-01	98	-	72	3.7	0	0	-	0	-	-	-
Pink	5	19-Jul-01	7	-	84	6.3	0	0	-	0	-	-	-

Pink	5	19-Jul-01	45	-	78.5	2.2	0	0	-	0	-	-	-
Pink	5	19-Jul-01	48	-	84	6.3	0	0	-	0	-	-	-
Pink	5	24-Jul-01	18	-	76	4.4	0	0	-	0	-	-	-
Pink	18	30-Jul-01	64	-	73.5	4.3	0	0	-	0	-	-	-
Pink	18	30-Jul-01	85	-	66.5	2.8	0	0	-	0	-	-	-
Pink	18	30-Jul-01	87	-	80.5	4.9	0	0	-	0	-	-	-
Pink	18	18-Jul-01	77	-	78	5.1	0	1	B	0	-	-	-
Pink	5	19-Jul-01	2	-	71.5	3.4	0	1	B	0	-	-	-
Pink	5	19-Jul-01	4	-	82	5.5	0	1	B	0	-	-	-
Pink	5	19-Jul-01	8	-	73	3.9	0	1	B	0	-	-	-
Pink	5	19-Jul-01	9	-	78	4.8	0	1	B	0	-	-	-
Pink	5	19-Jul-01	10	-	78.5	5.2	0	1	B	0	-	-	-
Pink	5	19-Jul-01	19	-	79	5.1	0	1	B	0	-	-	-
Pink	5	19-Jul-01	21	-	85	6.5	0	1	B	0	-	-	-
Pink	5	19-Jul-01	25	-	78	4.6	0	1	B	0	-	-	-
Pink	5	19-Jul-01	28	-	89.5	6.9	0	1	B	0	-	-	-
Pink	5	19-Jul-01	29	-	84	6.2	0	1	B/T	0	-	-	-
Pink	5	19-Jul-01	39	-	102	10.9	0	1	B	0	-	-	-
Pink	5	19-Jul-01	53	-	86.5	6.8	0	1	B	0	-	-	-
Pink	5	19-Jul-01	55	-	85.5	5.9	0	1	B	0	-	-	-
Pink	5	24-Jul-01	12	-	94.5	8	0	1	B/T	0	-	-	-
Pink	5	24-Jul-01	20	-	98.5	9.3	0	1	B	0	-	-	-
Pink	5	24-Jul-01	34	-	88.5	7.1	0	1	B	0	-	-	-
Pink	5	24-Jul-01	42	-	88.5	6.9	0	1	B/T	0	-	-	-
Pink	5	24-Jul-01	43	*	81	5.7	0	1	B/T	0	-	-	-
Pink	5	24-Jul-01	44	-	88.5	6.7	0	1	B/T	0	-	-	-
Pink	5	24-Jul-01	51	-	87	6.3	0	1	B	0	-	-	-
Pink	5	24-Jul-01	60	-	78	4.5	0	1	B/T	0	-	-	-
Pink	18	30-Jul-01	63	-	83	5.5	0	1	B	0	-	-	-
Pink	18	30-Jul-01	68	-	77	4.4	0	1	B	0	-	-	-
Pink	18	30-Jul-01	69	-	70	3.1	0	1	B	0	-	-	-
Pink	18	30-Jul-01	71	-	74	4	0	1	B	0	-	-	-
Pink	18	30-Jul-01	73	-	73	4	0	1	B/T	0	-	-	-

Pink	18	30-Jul-01	76	-	89	6.6	0	1	B	0	-	-	-
Pink	18	30-Jul-01	81	*	75	4.2	0	1	B	0	-	-	-
Pink	18	30-Jul-01	88	-	75	4	0	1	B	0	-	-	-
Pink	18	30-Jul-01	103	-	79	5.8	0	1	B	0	-	-	-
Pink	18	30-Jul-01	107	-	85.5	6.4	0	1	B	0	-	-	-
Pink	18	30-Jul-01	109	-	78.5	5.1	0	1	B	0	-	-	-
Pink	18	30-Jul-01	110	-	79.5	4.3	0	1	B	0	-	-	-
Pink	18	30-Jul-01	113	-	71.5	3.7	0	1	B	0	-	-	-
Pink	18	30-Jul-01	119	-	65	2.7	0	1	B	0	-	-	-
Pink	18	30-Jul-01	106	-	75	4.6	0	2	B	0	-	-	-
Pink	18	30-Jul-01	95	-	90.5	7.9	0	1	B	1	B	-	-
Pink	5	19-Jul-01	1	-	87	6.8	0	1	B/T	3	B	-	-
Pink	5	19-Jul-01	6	-	84	5.7	0	0	-	4	B	-	-
Pink	5	18-Jul-01	13	-	87	8	0	1	B	4	B	-	-
Pink	5	19-Jul-01	5	-	76.5	4.9	0	1	B	4	B	-	-
Pink	5	19-Jul-01	27	-	83	5.4	0	1	B	4	T	-	-
Pink	5	19-Jul-01	33	-	70.5	3.8	0	1	B	4	B	-	-
Pink	5	19-Jul-01	35	-	78	4.7	0	1	B	4	B/T	-	-
Pink	5	19-Jul-01	56	-	85	6.3	0	1	B	4	B	-	-
Pink	5	19-Jul-01	58	-	67.5	3.6	0	1	B	4	B	-	-
Pink	5	19-Jul-01	59	-	71.5	3.5	0	1	B	4	B	-	-
Pink	5	24-Jul-01	52	-	86.5	5.7	0	1	B	4	B	-	-
Pink	18	30-Jul-01	111	-	82	6.2	0	1	B	4	B	-	-
Pink	5	19-Jul-01	37	-	73	3.5	0	1	B	5	B	-	-
Pink	5	18-Jul-01	16	-	80.5	4.7	0	0	-	6	B	-	-
Pink	18	18-Jul-01	80	-	73	4.5	0	0	-	9	B	-	-
Pink	5	19-Jul-01	47	-	65.5	2.8	0	0	-	9	B	-	-
Pink	18	18-Jul-01	96	-	88	7.5	0	1	B/T	9	B	-	-
Pink	5	19-Jul-01	32	-	76.5	4.7	0	1	B	9	B	-	-
Pink	5	24-Jul-01	22	-	96.5	8.8	0	1	B/T	9	B	-	-
Pink	5	24-Jul-01	50	-	83.5	5.6	0	1	B	9	T	-	-
Pink	18	30-Jul-01	92	-	65	2.8	1	0	-	0	-	-	-
Pink	5	18-Jul-01	14	-	87	6	1	1	B	0	-	-	-

Pink	5	19-Jul-01	31	-	74	4	1	1	B	0	-	-	-
Pink	5	24-Jul-01	57	*	77	5.2	1	1	B	0	-	-	-
Pink	18	30-Jul-01	62	-	71.5	3.7	1	1	B	0	-	-	-
Pink	18	30-Jul-01	67	-	61	2.4	1	1	B	0	-	-	-
Pink	18	30-Jul-01	79	-	88	6.6	1	1	B/T	0	-	-	-
Pink	18	30-Jul-01	86	-	77.5	4.3	1	1	B	0	-	-	-
Pink	18	30-Jul-01	93	-	79.5	5.2	1	1	B/T	0	-	-	-
Pink	18	30-Jul-01	99	*	79	5.7	1	1	B	0	-	-	-
Pink	18	30-Jul-01	104	-	71.5	4.4	1	1	B	0	-	-	-
Pink	18	30-Jul-01	114	-	81	5.4	1	1	B	0	-	-	-
Pink	18	30-Jul-01	115	-	70.5	4	1	1	B	0	-	-	-
Pink	18	30-Jul-01	117	-	65	2.9	1	1	B	0	-	-	-
Pink	18	18-Jul-01	66	-	61.5	3	1	1	B	4	B	-	-
Pink	5	19-Jul-01	41	*	85.5	5.8	1	1	T	4	B	-	-
Pink	18	30-Jul-01	72	-	72	3.9	1	1	B	4	B	-	-
Pink	18	30-Jul-01	82	*	80.5	5.1	1	1	B	4	B	-	-
Pink	18	30-Jul-01	116	-	79	5.4	1	1	B	4	B	-	-
Pink	5	24-Jul-01	54	-	79	4.7	1	1	B/T	9	B	-	-
Pink	18	18-Jul-01	84	-	73.5	4.7	2	0	-	0	-	-	-
Pink	18	18-Jul-01	90	-	67.5	3	2	0	-	0	-	-	-
Pink	18	30-Jul-01	61	-	83	5.6	2	0	-	0	-	-	-
Pink	18	18-Jul-01	91	-	65.5	2.6	2	1	B/T	0	-	-	-
Pink	18	18-Jul-01	108	*	70	4.4	2	1	B	0	-	-	-
Pink	18	30-Jul-01	70	-	76.5	4.5	2	1	B	0	-	-	-
Pink	18	30-Jul-01	89	*	67.5	3.5	2	1	B	0	-	-	-
Pink	18	30-Jul-01	74	-	63.5	2.9	2	2	B	0	-	-	-
Pink	18	30-Jul-01	102	*	82	6	2	1	B	1	B	-	-
Pink	5	19-Jul-01	46	-	63	2.7	2	1	B	4	B/T	-	-
Pink	18	30-Jul-01	112	*	66	3	2	1	B	4	B	-	-
Pink	5	19-Jul-01	24	-	79.5	4.8	2	1	B	9	B	9	T
Pink	5	24-Jul-01	38	-	83	5.7	3	1	B	0	-	-	-
Pink	18	30-Jul-01	65	-	77	4.2	3	2	B/T	0	-	-	-
Pink	18	30-Jul-01	100	-	65.5	2.6	3	2	B	0	-	-	-

Pink	5	19-Jul-01	15	-	94	8.4	3	1	B	4	B/T	-	-
Pink	5	19-Jul-01	36	-	84	6.2	3	1	B	9	B	-	-
Pink	18	18-Jul-01	97	-	71.5	3.4	4	0	-	0	-	-	-
Pink	18	19-Jul-01	105	-	76	5	4	1	B	0	-	-	-
Pink	18	30-Jul-01	83	-	72	3.5	4	1	B/T	0	-	-	-
Pink	18	30-Jul-01	78	-	88	6.2	4	2	B/T	0	-	-	-
Pink	18	18-Jul-01	101	-	71	4.3	5	0	-	0	-	-	-
Pink	18	30-Jul-01	94	*	70	3.3	10	2	B/T	0	-	-	-
Pink	7	17-Jul-01	1	-	78	4.4	0	0	B	0	-	-	-
Pink	19	24-Jul-01	39	-	81	5.3	0	0	-	0	-	-	-
Pink	19	24-Jul-01	41	-	83.5	6.4	0	0	-	0	-	-	-
Pink	19	24-Jul-01	43	-	88	8.1	0	0	-	0	-	-	-
Pink	19	24-Jul-01	44	-	75	4.3	0	0	-	0	-	-	-
Pink	19&20	25-Jul-01	46	-	67	3.8	0	0	-	0	-	-	-
Pink	19	20-Aug-01	16	-	90.5	8.3	0	0	-	0	-	-	-
Pink	19	24-Jul-01	23	-	81	6.5	0	1	B	0	-	-	-
Pink	19	24-Jul-01	36	-	81.5	5.3	0	1	B/T	0	-	-	-
Pink	19	24-Jul-01	37	-	80	5.7	0	1	T	0	-	-	-
Pink	19	24-Jul-01	38	-	78	5.5	0	1	B/T	0	-	-	-
Pink	19&20	25-Jul-01	47	-	85.5	7.3	0	1	B/T	0	-	-	-
Pink	19&20	25-Jul-01	58	-	81	5.9	0	1	B	0	-	-	-
Pink	19&20	25-Jul-01	70	-	82	7	0	1	B	0	-	-	-
Pink	19&20	25-Jul-01	92	-	81	5.7	0	1	B	0	-	-	-
Pink	19	01-Aug-01	51	*	76	4.3	0	1	B	0	-	-	-
Pink	20	01-Aug-01	61	-	96	9.4	0	1	B/T	0	-	-	-
Pink	20	01-Aug-01	64	-	98	12.3	0	1	B/T	0	-	-	-
Pink	20	01-Aug-01	73	-	91	7.9	0	1	B/T	0	-	-	-
Pink	20	01-Aug-01	78	-	94	9.4	0	1	B/T	0	-	-	-
Pink	20	01-Aug-01	81	-	100	11.1	0	1	B/T	0	-	-	-
Pink	20	01-Aug-01	84	-	89.5	8.1	0	1	B	0	-	-	-
Pink	20	01-Aug-01	93	-	92	7.4	0	1	B/T	0	-	-	-
Pink	19	20-Aug-01	8	*	79	6.2	0	1	B	0	-	-	-
Pink	19	20-Aug-01	11	-	90	7.9	0	1	B	0	-	-	-

Pink	19	20-Aug-01	15	T*	73	4.8	0	1	B	0	-	-	-
Pink	19	20-Aug-01	17	T*	90	7.8	0	1	B	0	-	-	-
Pink	19	20-Aug-01	25	-	87	7.1	0	1	B	0	-	-	-
Pink	19	20-Aug-01	42	-	90.5	7.4	0	1	B	0	-	-	-
Pink	19	20-Aug-01	53	T	74.5	5	0	1	B	0	-	-	-
Pink	19	20-Aug-01	57	*	83.5	6.1	0	1	B	0	-	-	-
Pink	19	20-Aug-01	59	-	84	6.3	0	1	B	0	-	-	-
Pink	19&20	25-Jul-01	89	-	82	6.5	0	2	T	0	-	-	-
Pink	19&20	25-Jul-01	91	-	86.5	6.4	0	2	B	0	-	-	-
Pink	20	01-Aug-01	83	-	97	9.9	0	2	B/T	0	B	-	-
Pink	20	01-Aug-01	88	-	81	6.1	0	2	B/T	0	-	-	-
Pink	20	01-Aug-01	90	-	94.5	8.7	0	2	B/T	0	-	-	-
Pink	19	20-Aug-01	14	T*	79	5.9	0	2	B	0	-	-	-
Pink	19	20-Aug-01	30	T	77.5	4.7	0	2	B	0	-	-	-
Pink	19	20-Aug-01	33	T*	70	4.1	0	2	B	0	-	-	-
Pink	19	20-Aug-01	45	-	90.5	3.4	0	2	B	0	-	-	-
Pink	19	20-Aug-01	49	-	91	8.2	0	2	B	0	-	-	-
Pink	19	20-Aug-01	50	*	78	4.6	0	2	B	0	-	-	-
Pink	19	20-Aug-01	54	-	85	5.9	0	2	B	0	-	-	-
Pink	19	20-Aug-01	56	*	68	3.5	0	2	B	0	-	-	-
Pink	19	20-Aug-01	60	-	77	4.4	0	2	B	0	-	-	-
Pink	19	20-Aug-01	48	-	70	3.6	0	3	B	0	-	-	-
Pink	19	20-Aug-01	16	T*	80.5	5.2	0	0	B	1	B	-	-
Pink	19	20-Aug-01	26	-	82.5	6	0	1	B	1	B	-	-
Pink	19	20-Aug-01	24	-	90.5	7.9	0	2	B	1	B	-	-
Pink	19	20-Aug-01	21	-	81	6.1	0	2	B	2	B	-	-
Pink	19&20	25-Jul-01	52	*	71.5	4.8	0	0	-	4	B	-	-
Pink	19&20	25-Jul-01	80	-	90	7.5	0	1	B/T	4	B	-	-
Pink	19&20	25-Jul-01	94	-	85.5	7.2	0	1	B	4	B	-	-
Pink	20	01-Aug-01	74	-	91.5	8.6	0	1	B/T	4	B	-	-
Pink	20	01-Aug-01	76	-	90.5	8	0	1	B/T	4	B	-	-
Pink	20	01-Aug-01	77	-	81.5	6.1	0	1	B/T	4	B	-	-
Pink	20	01-Aug-01	82	-	83.5	5.9	0	1	B	4	B	-	-

Pink	20	01-Aug-01	86	-	87.5	6.8	0	1	B	4	B	4	H
Pink	20	01-Aug-01	87	-	86.5	8.6	0	1	B/T	4	T	-	-
Pink	19	20-Aug-01	29	*	76	4.7	0	3	B	6	B	-	-
Pink	19&20	25-Jul-01	66	-	95	8.5	0	0	-	9	B	-	-
Pink	19	24-Jul-01	34	*	77.5	5.3	1	1	B/T	0	-	-	-
Pink	19	24-Jul-01	40	-	84	6.7	1	1	B	0	-	-	-
Pink	19&20	25-Jul-01	62	-	91.5	7.8	1	1	B	0	-	-	-
Pink	19	20-Aug-01	5	*	81	4.2	1	1	B	0	-	-	-
Pink	19	20-Aug-01	7	-	83.5	6.1	1	1	B	0	-	-	-
Pink	19	20-Aug-01	18	-	79	5	1	1	B	0	-	-	-
Pink	19	20-Aug-01	20	-	83.5	6.1	1	1	B	0	-	-	-
Pink	20	01-Aug-01	65	-	83.5	6.6	1	2	B	0	-	-	-
Pink	19	20-Aug-01	4	-	83.5	5.8	1	1	B	1	B	-	-
Pink	19	20-Aug-01	3	-	75.5	4.9	1	2	B	1	B	-	-
Pink	19&20	25-Jul-01	75	-	91	7.3	1	0	-	4	B	-	-
Pink	20	01-Aug-01	67	-	88	8.3	1	1	B/T	4	B	-	-
Pink	19	20-Aug-01	6	-	80	5.4	1	1	B	6	B	-	-
Pink	19	24-Jul-01	2	-	76	5.1	2	1	B	0	-	-	-
Pink	19	24-Jul-01	10	-	79	5	2	1	B	0	-	-	-
Pink	19	24-Jul-01	19	-	92	9	2	1	B	0	-	-	-
Pink	19	24-Jul-01	32	-	101	12.3	2	1	B/T	0	-	-	-
Pink	19	20-Aug-01	9	-	76	5.2	2	1	B	0	-	-	-
Pink	19	20-Aug-01	55	-	73	3.8	2	1	B	0	-	-	-
Pink	19&20	25-Jul-01	63	-	92	8.4	2	1	B/T	1	B	-	-
Pink	19	24-Jul-01	28	-	72	4.3	2	0	-	4	B	-	-
Pink	20	01-Aug-01	69	-	74.5	4.3	2	1	T	6	B	-	-
Pink	19&20	25-Jul-01	68	-	88.5	7.1	3	1	B	0	-	-	-
Pink	20	01-Aug-01	79	-	90.5	8	4	1	B/T	0	-	-	-

Appendix IV

Results of the microscopic counts of lice numbers showing the lifecycle stage. The information is given in the following columns: Species, fish number, the number of copepods by stage and location found on fish . The last column tabulates the total number of copepods on each fish.

Species	Fish #	Head Area							Body Area							Tail Area							
		Copepod stage copepoidid stage (CP), chalimus stage 1-4 (C1-C4), pre-adult (PA), adult (A)																					
		CP	C1	C2	C3	C4	PA	A	CP	C1	C2	C3	C4	PA	A	CP	C1	C2	C3	C4	PA	A	Total
Chum	1- 1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Chum	1- 3	-	-	-	-	-	-	-	-	3	2	2	-	1	1	-	-	-	-	-	-	-	9
Chum	1- 4	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 7	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 8	-	-	-	-	-	-	-	-	-	2	8	8	-	-	-	-	-	-	-	-	-	18
Chum	1- 9	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	3
Chum	1- 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 11	-	-	-	-	-	-	-	-	1	-	1	-	-	1	-	-	-	-	-	-	-	3
Chum	1- 12	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 14	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 15	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 16	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Chum	1- 17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 19	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 21	-	-	-	-	-	-	-	2	-	2	4	10	4	-	-	-	-	-	-	-	-	22
Chum	1- 23	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 24	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2

Chum	1- 25	-	-	-	-	-	-	-	-	4	1	1	1	-	-	-	-	-	-	-	-	-	-	-	7
Chum	1- 26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 27	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 28	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 29	-	-	-	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	3
Chum	1- 30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 31	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 32	1	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3
Chum	1- 33	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 34	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	3
Chum	1- 35	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Chum	1- 36	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	2
Chum	1- 37	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Chum	1- 38	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	1- 39	-	-	-	-	-	-	-	-	1	2	1	-	-	1	-	-	-	-	-	-	-	-	-	5
Chum	1- 40	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 41	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	1- 42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 43	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	3
Chum	1- 44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	1- 46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	2- 28	-	4	6	8	13	3	-	1	2	5	8	5	6	1	1	-	2	-	-	-	-	-	-	65
Chum	2- 38	3	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Chum	2- 40	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	2- 52	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2
Chum	2- 54	-	-	-	1	-	-	-	-	-	1	3	1	-	1	-	-	-	-	-	-	-	-	-	7
Chum	2- 56	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	2- 64	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	2- 66	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	2- 79	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	2- 89	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	3
Chum	3- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Chum	3-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-8	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	3-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	3-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-2	-	-	-	-	-	-	-	1	-	3	1	-	-	1	-	-	-	-	-	-	-	-	-	6
Chum	4-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-5	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	2
Chum	4-6	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-7	-	-	-	-	1	-	-	-	-	2	4	1	-	-	-	-	-	-	-	-	-	-	-	8
Chum	4-8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-10	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-13	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Chum	4-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-15	-	-	-	-	-	-	-	1	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	4
Chum	4-16	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	4-17	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	4-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-19	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-22	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-23	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	4-24	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Chum	4-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-27	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-29	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-32	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	3
Chum	4-33	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Chum	4-35	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3
Chum	4-36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-39	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	3
Chum	4-40	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-41	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chum	4-42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-43	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3
Chum	4-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-45	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-46	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-47	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-49	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-50	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	3
Chum	4-51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-52	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-53	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-54	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Chum	4-55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-58	-	-	-	-	-	-	-	2	-	2	1	1	-	-	-	-	-	-	-	-	-	-	-	6
Chum	4-59	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Chum	4-60	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Chum	4-61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-62	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Chum	4-63	-	-	-	-	-	-	1	2	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	5
Chum	4-64	-	-	-	-	-	-	-	5	1	1	1	-	-	2	-	-	-	-	-	-	-	-	-	10
Chum	4-65	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	4
Chum	4-66	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chum	4-67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-69	-	2	6	1	1	-	-	1	-	1	1	-	-	2	-	-	-	-	-	-	-	-	-	15
Chum	4-70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Chum	4-72	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-5	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Pink	1-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-8	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-9	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-11	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-13	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	1-15	-	1	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	4
Pink	1-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-18	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-21	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Pink	1-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-31	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Pink	1-32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-34	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	3
Pink	1-35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-36	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	3
Pink	1-37	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Pink	1-38	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	1-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-41	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Pink	1-42	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2
Pink	1-43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-44	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-46	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	4
Pink	1-47	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Pink	1-48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-50	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-52	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	1-53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-54	-	-	-	-	-	-	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	4
Pink	1-55	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Pink	1-56	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-57	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Pink	1-58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-59	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Pink	1-61	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2
Pink	1-62	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	2
Pink	1-63	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	1-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-65	-	-	-	-	-	-	-	1	2	-	-	-	1	2	-	-	-	-	-	-	-	6
Pink	1-66	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	1-67	-	-	1	-	1	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	5
Pink	1-68	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	4
Pink	1-69	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-71	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	1-72	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2
Pink	1-73	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	1-74	-	-	-	-	-	-	-	1	1	2	-	-	-	1	-	-	-	-	-	-	-	5
Pink	1-76	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	3
Pink	1-77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-78	-	-	-	-	-	1	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	5
Pink	1-79	-	-	-	-	-	-	-	-	1	1	-	-	-	2	-	-	-	-	-	-	-	4
Pink	1-80	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-81	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
Pink	1-82	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-83	-	1	3	1	-	-	-	3	-	2	1	1	2	1	-	-	-	-	-	-	-	15
Pink	1-84	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	1-85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-86	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	3
Pink	1-87	-	-	-	-	-	-	-	3	-	1	1	-	1	-	-	-	-	-	-	-	-	6
Pink	1-88	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Pink	1-89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-90	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	4
Pink	1-91	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	3
Pink	1-92	-	-	-	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	3
Pink	1-93	-	-	-	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	3
Pink	1-94	-	-	-	-	-	-	-	3	1	5	7	-	6	-	-	-	-	-	-	-	-	22

Pink	1-95	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2
Pink	1-96	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2
Pink	1-97	-	1	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	5
Pink	1-98	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	3
Pink	1-99	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	1-100	-	-	1	1	-	-	-	-	-	1	1	-	-	-	3	-	-	-	-	-	-	-	7
Pink	1-101	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	-	-	-	-	-	-	-	5
Pink	1-102	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
Pink	1-103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-104	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	2
Pink	1-105	-	-	-	-	-	-	-	1	1	-	1	-	2	1	-	-	-	-	-	-	-	-	6
Pink	1-106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-107	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-108	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	1-109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Pink	1-113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	1-114	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	1-115	-	2	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	5
Pink	1-116	-	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	3
Pink	1-117	-	-	-	1	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Pink	1-119	-	1	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Pink	4-2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2
Pink	4-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Pink	4-4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-5	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	4-6	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	4-7	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pink	4-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-9	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	3
Pink	4-10	-	-	-	-	-	-	-	3	-	-	-	2	-	-	2	-	-	-	-	-	-	-	7

Pink	4-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-15	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-18	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-19	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	3
Pink	4-20	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-23	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-26	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-28	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Pink	4-29	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-32	-	-	-	-	-	-	-	1	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	4
Pink	4-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-34	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Pink	4-36	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-40	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Pink	4-41	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	4-42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-44	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-45	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-46	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	4-47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Pink	4-48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-51	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-55	-	-	-	-	-	-	-	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	3
Pink	4-56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-58	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Pink	4-59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-60	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pink	4-61	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-62	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-63	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	3
Pink	4-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-65	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-67	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-68	-	-	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	3
Pink	4-69	1	-	-	-	-	-	-	2	1	-	1	2	1	1	-	-	-	-	-	-	-	-	-	9
Pink	4-70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-73	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-75	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Pink	4-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-78	-	-	-	-	-	-	-	1	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Pink	4-79	-	-	-	-	-	-	-	1	1	-	-	-	1	2	-	-	-	-	-	-	-	-	-	5
Pink	4-80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-81	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Pink	4-82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

Pink	4-84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-87	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pink	4-88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Pink	4-94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0